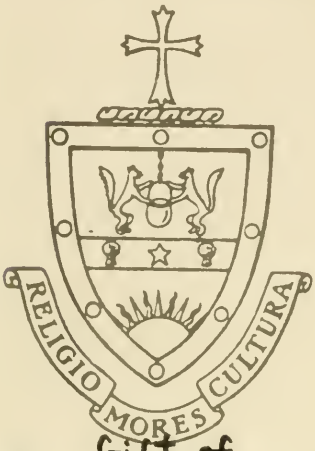
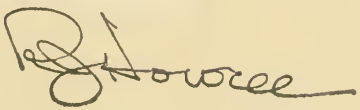
REFERENCE STORAGE

REF
TN
823
P4
A2
1887

University of Scranton
The Library



Gift of
Roger J. Howell



For Reference

Not to be taken from this room

REPORTS

OF THE

INSPECTORS OF MINES

OF THE

Anthracite Coal Regions of Pennsylvania,

FOR THE

YEAR 1887.

HARRISBURG:
EDWIN K. MEYERS, STATE PRINTER.
1888.

VIRTUE
LIBERTY AND
INDEPENDENCE

CONTENTS.

Report of Inspector of First Anthracite District, ... 1
Report of Inspector of Second Anthracite District, ... 25
Report of Inspector of Third Anthracite District, ... 45
Report of Inspector of Fourth Anthracite District, ... 73
Report of Inspector of Fifth Anthracite District, ... 97
Report of Inspector of Sixth Anthracite District, ... 117
Report of Inspector of Seventh Anthracite District, ... 141

FIRST ANTHRACITE DISTRICT.

Office of the Inspector of Mines,
Scranton, Pa, *March 31, 1888.*

Hon. Thomas J. Stewart,
Secretary of Internal Affairs:

Sir: In compliance with article two (2) section seven (7) of an act of Assembly, approved June 30th, A. D. 1885, I have the honor of herewith submitting my annual report as Inspector of Mines for the year ending December 31st, A. D. 1887.

The collieries in this district are in good condition. By reference to the accompanying tabular report it shows that the production of coal during the year was 8,527,768.05 tons, an increase of 1,415,572.09 tons over the production of 1886. There was an increase in production and a decrease in the number of deaths and accidents.

The following is a summary of the most important statistics:

	Tons.
Amount of coal mined in 1887,	8,527,768.05
Amount of coal mined in 1886,	7,112,295.16
Increase of coal mined in 1887,	1,415,572.09
Amount of coal shipped in 1887,	8,007,908.04
Amount of coal shipped in 1886,	6,731,227.00
Increase in shipments in 1887,	1,276,681.04
Amount of coal sold at mines in 1887,	240,482.01
Amount of coal used at mines for steam, etc., etc.,	279,378.00

There were 274,305 kegs of powder used to mine 8,527,768.05 tons of coal, which would give 31 tons mined for each keg

There were 57 fatal accidents in 1887.

There was one death for every 149,160 tons of coal mined.

There were 60 fatal accidents in 1886.

There was one death for every 118,538 tons of coal mined.

There were 225 non-fatal accidents.

There was 37,901 tons of coal mined for each non fatal accident.

There were 32 wives made widows.

Total number of employés,	21,269
Tons of coal mined for each employé,	401
Total number of persons working in mines,	14,729
Tons of coal mined for each,	579
Total number of miners and laborers,	10,199
Number of tons of coal mined for each,	836
Ratio of employés per life lost,	373
Ratio of employés for each personal injury,	95

Respectfully submitted.

PATRICK BLEWITT,
Inspector of Mines.

Colliery Improvements During 1887.

Delaware, Lackawanna and Western Railroad Company.—This company reports but very few improvements during the year, except driving headings and airways to open up their different mines, so as to mine sufficient coal to supply the market.

Cayuga Shaft.—The company is sinking a new shaft about one mile north-east of the main shaft for a supply shaft and for the purpose of lowering and hoisting persons into and out of the mines.

Sloan Shaft.—Sunk a new slope in coal in mine; and are also building a new plane in mine.

Storr's Shaft.—Are sinking a new shaft for second opening and supply shaft.

Delaware and Hudson Canal Company have not reported any improvements during the year 1887, except the usual advancement of their workings to supply the coal demand and sinking the two shafts at Dixon mines from G or Big to Clark vein of coal.

A. Langdon & Co.—Belmount Colliery put in place three new boilers, erected a double elevator and built two new pockets in breaker.

Bridge Coal Company—Bridge Shaft Mines.—This company made second opening in new County vein, and are now finishing new foot for same.

Lackawanna Iron and Coal Company—Capouse Shaft Mines.—This company is driving a tunnel from rock to Diamond vein; size, 14x6 feet.

Dolph Coal Company—Dolph Mine.—This company is driving a rock tunnel.

Hillside Coal and Iron Company—Forest City Mines.—The shaft reported as being sunk 160 feet to bottom vein in last year's report (1886), has reached a depth of 199 feet. Suspension of work for some months accounts for it not being finished. Work is now going rapidly forward to completion.

Jessup Coal Company—Filer's Slope.—This company is sinking a new slope in coal; it is now down 900 feet. Sectional area, 96 feet.

Hillside Coal and Iron Company—Glenwood Shafts.—The work on the two shafts and breaker, reported in last year's report, 1886, under the head of Erie colliery improvements, has been advanced as follows: The shaft to top vein has been completed at a depth of 100 feet. The shaft to bottom vein has reached a depth of 160 feet. Work is being pushed rapidly forward in this shaft. The breaker to prepare the out-put of these two shafts for market is about finished, and is expected to prepare coal from the top vein about February 1, 1888. This Company is also sinking the Clifford shaft, at Forest City, as rapidly as possible.

John Jermyn—Jermyn No. 4 Shaft has built a new reservoir for spring water to supply the boilers. Started sinking a new slope November 5, 1887, and are down 170 feet. Slope opening, 14′x7′; pitch, 1 foot in 3 feet. Has set three new boilers in place; one pair of engines, 10″x10″; one fan engine, 12″x12″, and one pumping engine.

Wm. T. Smith—Mount Pleasant Slope.—Sinking a new shaft to Clark vein. Size of shaft opening is 30′x11′. Depth of shaft from surface to bottom of little vein, 27 feet; Diamond vein, 139 feet; Rock vein, 171 feet; G or Big vein, 241 feet; new County vein, 292 feet; and to Clark vein, 365½ feet.

Moosic Mountain Coal Company—Marshwood Colliery have everything ready to ship coal when branch track to breaker is finished. Are now pushing the work rapidly forward.

William H. Richmonds—Richmond Shaft.—Finished sinking shaft reported in 1886, and are now mining coal in No. 2 vein.

Winton Coal Company—S. V. White Mine has sunk a new shaft and built a new furnace.

Pennsylvania Coal Company—Shaft No. 1 Dunmore.—The second opening of this shaft is not yet completed.

William Connell & Co.—Stafford Shaft has been put in good working order. A new hoisting tower and new engine and boiler houses have been erected. A new nine foot diameter fan has been put in place, and a new railroad track has been laid connecting this shaft with the National breaker, where the coal is prepared for market.

Watkin's Son & Co.— Watkin's Colliery.—This company has erected a new breaker, having a capacity to prepare 500 tons of coal per day of ten hours. Have also erected a boiler house, blacksmith shop, barn and office, etc. Also sunk slope, opened a tunnel, sunk air shaft, and built air stack and furnace for ventilating purposes.

TABLE 1.—Showing location of collieries in the First Anthracite Mine District for the year ending December 31, 1887.

NAME OF COLLIERY.	Name of Operator.	Location—County.	Name of Superintendent.	Postoffice Address.
Archibald Shaft,	Delaware, Lackawanna and Western R. R. Co.,	Lackawanna,		Scranton, Pa.
Bellevue Shaft,	do. do. do.	do.		do.
Bellevue Slope,	do. do. do.	do.		do.
Brisbin Shaft,	do. do. do.	do.	Wm. R. Storrs, General Coal Agent.	do.
Continental Shaft,	do. do. do.	do.		do.
Central Shaft,	do. do. do.	do.	Wm. H. Storrs, Assistant General Coal Agent,	do.
Cayuga Shaft,	do. do. do.	do.		do.
Dodge Shaft,	do. do. do.	do.		do.
Diamond No. 2 Shaft,	do. do. do.	do.	Benj. Hughes, General Mine Superintendent,	do.
Holden Shaft,	do. do. do.	do.		do.
Hampton Shaft,	do. do. do.	do.		do.
Hyde Park Shaft,	do. do. do.	do.	Thos. D. Davis, Assistant General Mine Superintendent,	do.
Manville Shaft,	do. do. do.	do.		do.
Oxford Shaft,	do. do. do.	do.		do.
Pyne Shaft,	do. do. do.	do.	Townsend Poor, General Master Machinist,	do.
Sloan Shaft,	do. do. do.	do.		do.
Storrs Shaft,	do. do. do.	do.		do.
Taylor Shaft,	do. do. do.	do.		do.
Taylor Drift,	do. do. do.	do.		do.
Tripp Shaft,	do. do. do.	do.		do.
Coal Brook Tunnel,	Delaware and Hudson Canal Company,	do.	A. H. Vandling, General Superintendent Coal Department,	do.
Dickson Shaft,	do. do. do.	do.		do.
Eddy Creek Shaft,	do. do. do.	do.		do.
Grassy Island Shaft,	do. do. do.	do.	J. M. Chittenden, General Outside Assistant,	do.
Jermyn No. 1 Shaft,	do. do. do.	do.		do.
Leggitt's Creek Shaft,	do. do. do.	do.		do.
Marvine Shaft,	do. do. do.	do.	Andrew Nicol, General Mine Superintendent,	do.
Midland Tunnel,	do. do. do.	do.		do.
Number 1 Shaft,	do. do. do.	do.		do.
Number 3 Shaft,	do. do. do.	do.	A. B. Nicol, Assistant General Mine Superintendent,	do.
Olyphant No. 2 Shaft,	do. do. do.	do.		do.
Powderly Slope,	do. do. do.	do.		do.
Von Storch Slope and Shaft,	do. do. do.	do.	Alexander Simpson, General Master Mechanic,	do.
White Oak Slope and Tunnel,	do. do. do.	do.		do.
White Bridge Tunnel,	do. do. do.	do.		do.
Rackett Brook Breaker,	do. do. do.	do.		do.
Shaft No. 1,	Pennsylvania Coal Company,	do.	John B. Smith, General Supt.; George Smith, Assistant Supt.; Jas. Young, Mine Supt.,	Dunmore, Lackawanna county, Pa.
Shaft No. 2,	do. do.	do.		do. do. do.
Shaft No. 3, Gypsy Grove,	do. do.	do.		do. do. do.
Shaft No. 4, Gypsy Grove,	do. do.	do.		do. do. do.
Shaft No. 5,	do. do.	do.		do. do. do.
Bridge Shaft,	Bridge Coal Company, Limited,	do.	A. B. Stevens,	Scranton, Pa.
Belmont Tunnel,	Andrew Langdon,	do.	W. T. Leas,	Carbondale, Pa.
Brennan's Tunnel,	Frisbie & Co.,	do.		do.
Capouse Shaft,	Lackawanna Iron and Coal Company,	do.	Reese G. Brooks,	Scranton, Pa.

Pine Brook Shaft,	do. do. do.	do.	do.	do.
Church Tunnel,	Church Coal Company, Limited,	do.	do.	do.
Clarke Tunnel,	Clark Tunnel Coal Company,	do.	James Flynn,	do.
Dolph Tunnel,	Dolph Coal Company, Limited,	do.	Edward J. Dolph,	do.
Eaton Shaft and Tunnel,	Jones Simpson & Co.,	do.	Edward Jones,	Archibald, Lackawanna county, Pa.
Pierce Tunnel,	do. do. do.	do.	do.	do. do. do.
Edgerton Tunnel,	Edgerton Coal Company, Limited,	do.	J. L. Crawford,	Jermyn, Lackawanna county, Pa.
Grassy Island Shaft and Tunnel,	Grassy Island Coal Company, Limited,	do.	do.	do. do. do.
Simpson Slope and Tunnels,	Northwestern Coal Company, Limited,	do.	do.	do. do. do.
Erie Shaft,	Hillside Coal and Iron Company,	do.	W. A. May,	Scranton, Pa.
Glenwood Slope,	do. do. do.	do.	do.	do.
Keystone Tunnel,	do. do. do.	do.	do.	do.
Forest City Shafts and Slope,	do. do. do.	Susquehanna,	do.	do.
Clifford Shaft,	do. do. do.	do.	do.	do.
Fair Lawn Slope,	Fair Lawn Coal Company, Limited,	Lackawanna,	John H. Hosie,	do.
Filer's Slope,	Jessup Coal Company,	do.	S. N. Stetler,	do.
Green Ridge Slope,	O. S. Johnson,	do.	O. S. Johnson,	do.
Lackawanna Coal Company Shaft,	Lackawanna Coal Company,	do.	do.	do.
Jermyn No. 4 Shaft,	John Jermyn,	do.	Walter M. Jermyn,	do.
Meadow Brook Shaft,	William Connell & Co.,	do.	William Connell,	do.
Meadow Brook Tunnel,	do. do.	do.	do.	do.
National Shaft and Slope,	do. do.	do.	do.	do.
Stafford Shaft,	do. do.	do.	do.	do.
Mount Pleasant Slope,	William T. Smith,	do.	William T. Smith,	do.
Marchwood Slope and Tunnel,	Moosic Mountain Coal Company.	do.	John R. Davis,	do.
Pancoast Shaft,	Pancoast Coal Company,	do.	George Griffin,	Throop, Lackawanna county, Pa.
Richmond Shaft,	Elk Hill Coal and Iron Company,	do.	Wm. H. Richmond,	Dickson City, Lackawanna co., Pa.
Spencer's Shaft,	A. D. & L. M. Spencer,	do.	A. D. Spencer,	Dunmore, Lackawanna county, Pa.
S. V. White Tunnel,	Winton Coal Company,	do.	Byron M. Winton,	Peckville, Lackawanna county, Pa.
Watkin's Slope and Tunnel,	Watkin's Son & Co.,	do.	W. W. Watkins,	Carbondale, Lackawanna co., Pa.

TABLE No. 2.—Gives the total number of tons of coal mined and tons of coal shipped from each colliery, number of days worked, number of employés, number of persons killed and injured, number of kegs of powder used, etc., in the First Anthracite Mining District, for the year ending December 31, 1887.

NAMES OF COLLIERIES	Location.	Total production in tons of coal.	Number of tons of coal used at each colliery for steam heating and furnace.	Number of tons of coal sold for local consumption.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs of powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.
Archbald Shaft,	Lackawanna twp., Lacka. co.,	172,808 01	5,200	888.00	166 720 01	201 1/10	401	.	6	6 463	14	55	. .
Bellevue Shaft,	do. do. do.	199 229.01	10,950	4,076.00	184 203.01	200 5/10	387	.	2	3 531	21	63	. . .
Bellevue Slope,	do. do. do.						100		3	1 991			
Brisbin Shaft,	3d ward, Scranton, Lacka. co.,	57,251.17	10,100	567 00	46,584.17	77	363	. .	1	1 956	15	40	.
Continental Shaft,	Lackawanna twp., Lacka. co.,	30 235 18	3 810	360 00	26 065 18	39 5/10	369			663	15	54	.
Central Shaft,	15th ward, Scranton, Lacka. co.,	287 742.01	19.000	5 110.00	263 632 01	215 1/10	491		3	5,938	27	73	1
Cayuga Shaft,	3d ward, Scranton, Lacka. co.,	172 917.17	8,500	3,193.00	161,224.17	204 5/10	418	2	8	4 445	12	60	. .
Dodge Shaft,	Lackawanna twp., Lacka. co.,	151,056.15	3,650	1,476.00	148 930.15	195	323	3	8	4 788	21	69	1
Diamond No. 2 Shaft,	21st ward, Scranton, Lacka. co.,	241,899.03	18 100	2,782.10	221,016.13	195 7/10	166		5	1,592	26	12	2
Tripp Shaft,	do. do. do.					206 2/10	416	1	4	5,911	29	43	.
Holden Shaft,	Lackawanna twp., Lacka co.,	150,740 15	3,650	720.00	146,370.15	214 1/10	246	1	8	5,700	12	33	. .
Hampton Shaft,	do. do. do.	181,835.13	5,250	1 940.00	174 645.13	211 1/10	428	2	4	4 960	13	59	. .
Hyde Park Shaft,	5th ward, Scranton, Lacka. co.,	116,699.11	3.500	1.129.00	112 070.11	193 6/10	312	.	2	3.751	12	45	. .
Manville Shaft	13th ward, Scranton, Lacka. co.,	116 524.15	1.040	5,021.00	110,463 15	122 2/3	210		6	3,059	9	26	. .
Oxford Shaft,	5th ward, Scranton, Lacka. co.,	124 182 03	150	1 892.00	122,140.03	171 1/3	378	1	9	4 052	19	39	. .
Pyne Shaft,	Lackawanna twp., Lacka. co.,	206 476 10	7,300	1,831 00	197 345.10	203 2/3	405	.	5	5,523	12	64	1
Sloan Shaft,	do. do. do.	207,949.10		173 00	207 776.10	213 1/3	474	.	7	5 964	18	67	.
Storr's Shaft,	1st ward, Scranton, Lacka. co.,	3,000.00	3 000				35	.	. . .	. .	6	5	. .
Taylor Shaft and Drift,	Lackawanna twp., Lacka. co.,	190,118.15	4,200	2 678.00	183 240.15	210 1/10	455	3	9	5,902	16	83	.
Miscellaneous employees, etc.,							227		. . .			. .	
Totals D., L. & W. R. R. Co.,		2 613 668.05	107,400	33 836 10	2 472,431 15	. .	6,604	13	90	76 039	300	900	5
Coal Brook and Midland Tunnels,	Carbondale City, Lacka. co.,	283 010 00	3 130	251 15	279 628.05	243 1/2	619	2	5	9,227	7	97	1
Dixon Shaft,	2d ward, Scranton, Lacka. co.,	213 169.09	9 390	1 508.08	202 271 01	237	395	7	5	5,505	15	41	. .
Eddy Creek Shaft,	Olyphant borough, Lacka. co.,	185 941 07	9 390	2 048.19	174 505 03	247 2/3	471	2	3	6,300	12	54	. .
Grassy Island Shaft,	do. do. do	45,627 08	9,703	337 09	35 586.19	82 1/2	351	. . .	3	1,224	18	38	1
Jermyn No. 1 Shaft,	Jermyn borough, Lacka. co.,	217 810.17	14 085	6,338.11	197,387 06	218 1/2	438		1	5,000	15	47	. . .
Leggitt's Creek Shaft,	1st ward, Scranton, Lacka. co ,	193 041 08	12,520	1 416.15	179,104 13	238 1/2	448	2	4	5,180	15	51	. .
Manville Shaft,	13th ward, Scranton, Lacka. co.,	114 649 07	5,479	2,538.18	106.631.09	121 1/2	211	. . .	5	3,059	9	25	. . .
Marvine Shaft,	1st ward, Scranton, Lacka. co.,	202 074.15	12 520	.	189.554.15	242 1/2	398	1	7	5.750	15	46	. .
No. 1 Shaft Carbondale,	Carbondale City, Lacka. co.,	51 888 16	3 130	. . . . .	51,758.16	222 1/2	251	. . .	. . .	4,000	5	31	.

No. 3 Shaft Carbondale,	Carbondale City, Lacka. co.,	8 857.13	1 695		4 712 13	223	154	1	1 756	6	11		
Olyphant No. 2 Shaft,	Olyphant borough, Lacka. co.,	115 253 10	7 512		107 741.10	218¾	294	5	3 665	12	81		
Powderly Slope,	Carbondale City, Lacka. co ,	91 586 10	5 321		86 265.10	233½	241		4,100	9	27		
Rackett Brook Breaker,	Carbondale twp., Lacka. co ,	206 915 10	2,191		204.724 10	258¾	75	2		5	5		
Von Storch Shaft and Slope,	2d ward, Scranton, Lacka. co.,	268 181.13	18 780	3,336.12	246 065.01	232¾	599	2	7	7,225	29	82	
White Oak Slope and Tunnel,	Archbald borough, Lacka. co ,	129,365 07	4,382	1 813 09	123.169.18	248	308		1	3,800	13	41	
Miscellaneous employees,							74						
Totals Del. & Hud. Canal Co.,		2,330,326 10	122,228	19 593.16	2,188,567.14		5,289	16	52	65,751	185	627	2
Shaft No. 1 Penn. Coal Co.,	Dunmore borough, Lacka co.,	1,055.00	1,055			290	30	1		575	6	1	
Shaft No. 2 Penn. Coal Co.,	do. do. do.	58 980 00	391		58 589.00	284¾	95			2,709	3	7	1
Shaft No. 3 Penn. Coal Co.,	do. do. do.	65 586 00	2 202	3 179 00	60,205.00	261¾	186			6,263	7	17	
Shaft No. 4 Penn. Coal Co.,	do. do. do.	70,444.00	344		70 100 00	261¾	137		1		3	21	
Shaft No. 5 Penn. Coal Co.,	do. do. do.	114 280 00	2,192	13,547.00	98 541.00	286½	303			5,868	5	23	
Totals Penn Coal Co.,		310,345.00	6,184	16,726.00	287,435.00		751	1	1	15,415	24	69	1
Bridge Shaft,	14th ward, Scranton, Lacka. co,,	107,291.06		27,740 10	79 550.16	271 5/6	248		6	4,472	12	49	
Belmont Tunnels,	Carbondale City Lacka. co.,	29 688.15	528	818 00	28 342 15	98	155			1.091	3	15	
Brennan's Tunnels,	Fell township, Lackawanna co.,	20 856.13			20.856 13	100	106			1,000	3	10	
Capouse Shaft,	21st ward, Scranton, Lacka. co.,	327 791.00	7,000	1 960.00	318,831.00	203	584	4	7	8,471	15	78	
Pine Brook Shaft,	7th ward, Scranton, Lacka co.,	145.904.00	4 224	2 319 00	138 861.00	172 5/6	516		6	4 289	3	49	
Church Slope and Tunnel,	2d ward, Scranton, Lacka. co.,	16 500.00	500	10 000 00	6,000 00	229	33			603	2	6	
Clark Tunnel,	3d ward, Scranton, Lacka. co.,	5 965.10		5 965 10		170	14			184	2	6	
Dolph Tunnel,	Winton borough, Lacka. co.,	68.433.02		499.00	67.934.02	201½	229		1	1,928	4	22	
Eaton Shaft and Tunnel,	Archbald borough, Lacka. co.,	127,105 00	480		126 625.00	237 1/6	370		3	4.763	11	27	2
Pierce Slope and Slope,	do. do. do.	151 657.00	2,508	303.00	148 845.00	209¼	333	1	6	4 300	13	24	3
Edgerton Tunnel,	do. do. do.	160,547.00		405 10	160,141 11	228 7/6	279		1	5 545	4	31	1
Grassy Island Shaft and Tunnel,	Winton borough, Lacka co ,	70 043.14	320	1.867.15	67,860.19	158½	327	1	6	2 805	15	27	1
Simpson Slope and Tunnels,	Fell township, Lacka. co ,	105,781.18		694 10	105,087 08	259	218		3	4 350	9	27	2
Erie Shaft,	Glenwood borough, Lacka. co.,	123 388.16		1,572.08	121,816 08	196¾	436	1		3 744	21	51	
Glenwood,	do. do. do.	Shafts sunk	ing and	building	breaker.		122						
Forest City Shafts and Slope,	Clifford twp., Susquehanna co.,	176 421.10	1,076	2,260.19	173 084.11	266½	353	1	3	7,270	11	35	2
Clifford Shaft,	do. do. do.	Sinking.					27						
Keystone Tunnel,	Glenwood borough, Lacka. co.,	145 867.01		291.00	145,576.01	254	308		2	4,418	2	33	
Fair Lawn Slope,	7th ward, Scranton Lacka. co.,	57,846.10	1.200	9,455.13	47 190.17	206½	179	1	3	2.687	5	18	
Filer's Slope,	Winton borough. Lacka. co.,	43 995.16	9,500	402.00	34,093.16	133 3/6	230	2	3	2,035	13	23	
Green Ridge Slope,	Dunmore borough, Lacka. co ,	141 357 06		5,171 00	136 186 06	220¼	390	1	4	6,499	12	44	
Lackawanna Shaft,	Blakely borough, Lacka. co ,	173.212.09		2 507.03	170,705.06	229 3/6	391		2	6,024	12	45	
Jermyn No. 4 Shaft,	Dickson City borough, Lacka. co.,	173,303.11		1,735 06	171,568.05	221	516	2	6	6,202	18	60	
Marshwood Slope and Tunnel,	do. do. do.	220 00	200	20 00				1		8			
Meadow Brook Shaft,	20th ward, Scranton, Lacka. co.,	182,254.08		49 607.00	132 647.08	218 7/6	337			7,187	17	44	
Meadow Brook Tunnel,	do. do. do.					195 7/10	80	1	1		1	16	1
National Shaft and Slope,	do. do. do	167,504.12			167,504 12	195 7/10	247	1		6,511	10	26	
Stafford Shaft,	Lackawanna twp., Lacka. co.,					88 5/6	47				3	4	1
Mount Pleasant Slope,	14th ward, Scranton, Lacka. co ,	146,016 17		8,935.13	137,031.04	197	357	2	4	4 500	10	34	
Pancoast Shaft,	Dickson City borough, Lack co ,	178.436 09	9 530	4 638 18	164,267.11	222	453	4	6	6,907	16	55	
Richmond Shaft,	21st ward, Scranton, Lacka. co.,	19,419 00	500	450.00	18.469.00	135	87	1	4	900	4	11	
Spencer's Shaft,	Dunmore borough, Lacka. co.,	117,509.10	8,650	3,422 00	110,437.10	181 3/5	291	3	1	4,905	11	22	
S. V. White Tunnel,	Winton borough, Lacka. co.,	60.609 01	1,800	111 00	58,698.01	202 5/6	213		4	3,019	3	19	1
Watkins Slope and Tunnel,	Carbondale City, Lacka. co.,	472.01	100	153.00	219.01	8	74			17	3	10	

TABLE No. 2—Continued.

NAMES OF COLLIERIES.	Location.	Total production in tons of coal.	Number of tons of coal used at each colliery for steam heating and furnace.	Number of tons of coal sold for local consumption.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs of powder used.	Number steam boilers.	Number horses and mules	Number mine locomotives.
Peckville Tunnel,	Winton borough, Lacka. co.,	1,801.14	450	550.00	801.14	6	Now idle.						
Tripp & Company,	21st ward, Scranton, Lacka. co.,	10,642.00		10,323.00	319.00	140	12					6	
Eight Local Coal Sale Mines,	Lackawanna county,	15,600.00		15,600.00			40			477	7	6	
Total miscellaneous coal cos.,		3,273,428.10	43,566	170,328.15	3,059,533.15		8,602	27	82	117,100	283	935	14
Grand totals,		8,527,786.05	279,378	240,482.01	8,007,908.04		21,246	57	225	274,305	792	2,531	22

TABLE No. 3—Showing the number of each class of employés at each colliery in the First Anthracite Mine District during the year 1887.

NAMES OF COLLIERIES.	NUMBER OF PERSONS EMPLOYED INSIDE.							NUMBER OF PERSONS EMPLOYED OUTSIDE.						Grand totals—Inside and outside.
	Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Outside foreman.	Mechanics.	Slate pickers.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	
Archbald shaft,	1	108	96	22	37	7	271	1	9	66	52	1	129	400
Bellevue shaft,	1	77	79	16	27	9	209	1	12	108	55	1	177	386
Bellevue slope,	1	33	33	12	18	3	100	. . .	. .	. . . .	. . . .	. . . .	. . . .	100
Brisbin shaft,	1	75	103	29	27	7	242	1	7	68	43	1	120	362
Continental shaft,	1	83	86	30	50	8	258	1	8	56	44	1	110	368
Central shaft,	2	119	123	35	54	16	349	1	11	70	58	2	142	491
Cayuga shaft,	1	82	82	54	39	6	284	1	10	90	51	1	153	417
Dodge shaft,	2	87	87	22	35	3	236	1	9	40	35	1	86	322
Diamond, No. 2, shaft,	1	23	23	12	7	1	67	. .	6	39	53	1	99	166
Holden shaft,	1	70	50	19	20	5	165	1	3	45	31	1	81	246
Hampton shaft,	1	95	90	32	48	11	277	1	8	70	72	1	152	429
Hyde Park shaft,	1	70	74	21	32	11	209	1	4	60	37	1	103	312
Manville shaft,	1	50	50	14	36	5	156	. .	5	24	25	. . . .	54	210
Oxford shaft,	1	90	94	20	38	9	252	1	10	69	45	1	126	378
Pyne shaft,	2	104	109	30	37	13	295	1	9	52	47	1	110	405
Sloan shaft,	2	113	113	25	47	11	311	1	7	96	58	1	163	474
Storrs' (sinking shaft),	1	. .	23	. .	. .	.	24	. . .	3	. .	8	. . .	11	35
Taylor drift and shaft,	2	102	106	39	56	12	317	1	4	75	57	1	138	455
Tripp shaft,	2	108	108	31	38	8	295	1	3	60	56	. . . .	120	415
Miscellaneous,	. . . .	. . . .	. .	. .	. . .	. . . .	. . . .	. . .	.	. .	. . .	. .	227	227
Total employees of Del., Lack. & Western R. R. Co , . . .	25	1,489	1,529	463	646	145	4,297	15	128	1,088	827	16	2 301	6,598
Coal Brook and Midland tunnels,	2	279	65	70	62	. .	478	1	8	61	70	1	141	619
Dixon shaft, Big and Clark veins,	1	88	88	45	56	9	287	1	11	52	43	1	108	395
Eddy Creek shaft,	1	138	122	47	39	6	353	1	7	55	54	1	118	471
Grassey Island shaft,	1	152	26	21	43	11	254	1	6	45	44	1	97	351
Jermyn, No. 1, shaft,	1	234	20	22	54	6	337	1	9	41	49	1	101	438
Leggett's Creek shaft, Diamond and Big veins,	2	102	102	43	76	10	335	1	14	52	45	1	113	448

TABLE No. 3—Continued.

NAMES OF COLLIERIES.	NUMBER OF PERSONS EMPLOYED INSIDE.							NUMBER OF PERSONS EMPLOYED OUTSIDE						Grand totals—inside and outside.
	Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside	Outside foreman.	Mechanics.	Slate pickers.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	
Manville shaft,	...	50	50	15	35	5	155	1	5	23	26	1	56	211
Marvine shaft,	1	97	93	32	50	14	287	1	6	50	53	1	111	398
No. 1 shaft, Carbondale,	1	135	14	27	34	4	215	1	2	5	28	...	36	251
No. 3 shaft, Carbondale,	1	55	22	35	17	5	135	1	1	1	16	...	19	154
Oliphant, No. 2, shaft,	1	136	28	18	41	3	227	1	5	30	30	1	67	294
Powderly slope,	1	130	30	21	28	8	218	1	2	7	16	...	26	244
Rackett Brook breaker,	...	...	...	...	...	...	...	1	1	44	28	1	75	75
Van Storch slope, Diamond and Big vein,	1	61	61	34	58	6	455	1	11	56	75	1	144	599
Van Storch shaft, Clark vein,	1	74	74	50	50	5								
White Oak slope and tunnel,	1	100	50	16	36	7	210	1	6	45	45	1	98	308
Miscellaneous,	..	..	.	.	...	...	.	....	....	....	....	....	74	74
Total employees of Delaware & Hudson Canal Co,,	16	1 831	845	476	679	99	3,946	15	94	567	622	12	1, 384	5 3 0
Bridge shaft,	1	43	46	13	25	12	140	1	5	60	42	2	110	250
Belmont tunnel,	1	50	15	7	19	6	98	1	4	25	27	2	59	157
Capouse shaft,	2	143	140	59	70	14	428	1	12	70	73	2	158	586
Dolph tunnel,	1	56	57	6	33	6	153	1	3	49	23	2	78	231
Eaton shaft and tunnel,	1	128	78	9	32	9	257	2	3	59	49	2	115	372
Edgerton tunnel,	1	85	75	8	25	8	202	1	6	40	28	2	77	279
Erie shaft,	1	210	10	55	48	6	330	1	8	60	37	2	108	438
Forest City shaft and slope,	2	125	53	26	42	10	258	1	9	30	55	2	97	355
Filer's slope,	2	49	47	17	22	6	143	1	5	45	33	2	86	229
Fair Lawn slope,	1	35	42	10	20	7	115	1	4	40	19	2	66	181
Grassey Island shaft,	2	95	70	29	26	6	228		4	49	43	1	99	327
Grassey Island tunnel,														
Glenwood shaft (sinking ; also building breaker),	..	25	...	..	...	..	25	..	....	....	97	..	97	122
Green Ridge shaft,	1	95	95	25	55	15	286	1	5	60	36	2	104	390
Jermyn, No. 4, shaft,	1	125	125	45	85	18	399	1	5	60	51	2	119	518

Lackawanna shaft	1	109	100	25	55	8	289	1	5	60	34	3	103	392
Meadow Brook shaft	1	110	45	15	42	15	228	1	9	65	34	2	112	340
Meadow Brook tunnel	1	40	12	5	11	6	75	. . .	1	. .	4	. . .	5	80
Mount Pleasant slope	1	71	71	22	45	10	220	1	5	76	55	2	139	359
Keystone tunnel	1	160	8	24	42	6	241	1	4	35	27	. . . .	67	308
National shaft and slope	1	70	20	12	36	10	143	1	7	65	31	. . . .	104	247
Pine Brook shaft	1	86	131	41	73	14	346	1	6	77	86	2	172	518
Pierce slope and tunnel	1	120	60	20	20	6	227	1	8	48	49	2	108	335
Pancoast shaft	2	120	120	32	55	13	342	1	9	55	43	2	113	455
Richmond shaft	1	20	12	9	9	. . .	51	1	3	21	9	2	36	87
Shaft No. 1, Dunmore	1	5	8	9	1	. . . .	24	. . .	. . . .	. . .	6	. . . .	6	30
Shaft No. 2, Dunmore	1	29	30	7	9	3	79	1	1	. . .	14	. . . .	16	95
Shaft No. 3, Gypsey Grove	1	46	41	7	15	9	119	1	3	34	29	1	68	187
Shaft No. 4, Gypsey Grove	. . .	48	53	4	18	7	130	.	. . . .	. .	7	. . . .	7	137
Shaft No. 5, Dunmore	1	78	75	20	23	13	210	1	1	52	39	2	95	305
Stafford shaft	1	19	10	5	3	1	39	1	2	.	6	1	10	49
Spencer's shaft	2	65	65	12	32	10	186	2	3	51	49	2	107	293
S. V. White tunnel	1	46	51	13	33	6	150	1	4	39	19	2	65	215
Simpson slope and tunnel	1	65	56	7	16	4	149	1	7	29	30	2	69	218
Watkins slope and tunnel	1	18	18	2	7	3	49	1	1	16	7	2	27	76
Brennan's tunnel	1	34	10	5	15	3	68	1	2	20	14	1	38	106
Clifford shaft (sinking)	. . .	25	. .	. . .	. .	. . .	25	. . .	. . . .	. . .	2	. . .	2	27
Church tunnel	1	10	4	5	3	1	24	. . . .	. . .	4	5	. . .	9	33
Clark tunnel	1	4	5	. . .	.	.	10	. .	. . .	. .	4	. .	4	14
Total miscellaneous coal companies	41	2,653	1,852	610	1,059	271	6,486	34	154	1,394	1,219	54	2 855	9,341
Grand totals	82	5,973	4,226	1,549	2,388	515	14,729	64	376	3 049	2,668	82	6,540	21,269

TABLE 4.—List of fatal accidents occurring in and about the mines of the First Anthracite Mine District, for the year ended December 31, 1887.

Date of accident.	NAME OF PERSON.	Age.	Married or single.	No. of children.	Name of Colliery.	Location.	Nature and Cause of Accident in Brief.
Jan. 18,	Thomas Lamb, . . .	40	0	0	Pancoast, P. C. Co., ...	Dickson City borough, Lackawanna county, ...	Seriously injured; explosion of powder while handling it; died on 23d.
22,	Thomas Dawson, . .	26	1	3	Taylor, D. L. & W. R. R. Co., ...	Lacka. twp., Lacka. co., . . .	Killed; fall of coal.
22,	Patrick O'Brien, . .	50	1	7	Spencer, Spencer Bro., ...	Dunmore borough, Lacka. co. . .	Killed; fall of roof.
25,	Patrick Riley, . . .	15	0	0	Capouse, L. I. & C. Co., ...	21st ward Scranton, Lacka. co.	Leg cut off by cars running over him; died on 26th.
28,	William Gannon, . .	24	0	0	Dickson, D. & H. C. Co., ...	2d ward, Scranton, Lacka co., .	Seriously injured; fall of roof; died Feb. 15th.
Feb. 5,	Andro Coolaskie, . .	22	0	0	Dickson, D. & H. C. Co., ...	do. do do.	Killed; fall of coal
18,	Patrick Haggerty, .	57	1	10	Dickson, D. & H. C. Co., ...	do do. do.	Seriously injured; fall of roof; died on 20th
19,	Michael Shincam, . .	31	0	0	Marshwood, M. M. C. Co., ...	Dickson City borough, Lackawanna county, ...	Killed; piece fell on his head out of descending bucket.
Mar. 21,	John Cavanagh, . .	40	1	5	Mount Pleasant, Wm. T. S., ...	14th ward, Scranton, Lacka. co.,	Killed instantly; fall of coal.
21,	John Harlow, ...	16	0	0	Forest City, H. C. & I. Co., ...	Clifford twp. Susq. co., ...	Killed; clothes caught in breaker machinery while oiling.
30,	Thomas Lewis, . . .	27	1	2	Von Storch, D. & H. C. Co., ...	2d ward, Scranton, Lacka. co.,	An explosion of fire damp occurred in Von Storch and Dickson Mines, Clark Vein, this morning, killing Thomas Lewis and Edward Owens.
30,	Edward Owens, . . .	47	1	10	Von Storch, D. & H. C. Co., ...	do. do. do.	
31,	Evan Evans, . . .	18	0	0	Cayuga, D., L. & W. R. R. Co., ...	3d ward, Scranton, Lacka. co., .	Killed; caught between car and pillar.
Apr. 2,	James O. Boyle, . .	42	1	4	Eddy Creek, D. & H. C. Co., ...	Olyphant borough, Lacka co., .	Killed; fall of bony coal.
11,	Benjamin Jenkens, .	40	1	2	Shaft No. 1, Penna. C. Co., ...	Dunmore borough, Lacka. co.,	Killed; fell down shaft, a distance of 106 feet.
13,	Wm. C. Evans,	35	0	0	Capouse, L. I. & C. Co., ...	21st ward, Scranton, Lacka. co.,	Killed; fall of rock.
14,	Thomas J. Morris, .	57	1	5	Capouse L. I. & C. Co., ...	do. do. do.	Killed; fall of rock.
25,	Mathew O'Boyle, .	27	1	2	Tripp Shaft, D. L. & W. R. R. Co., . . .	do. do. do.	Seriously injured; premature blast; died soon after.
May 11,	Patrick McDonnell,	14	0	0	Leggett's Creek, D. & H. C. Co., ...	1st ward, Scranton, Lacka co.,	Killed; caught by runaway culm car on plane.
19,	Frank Krof, . . .	50	1	1	Richmond, E. H. C. & I. Co.	21st ward, Scranton Lacka co.,	Killed; fell down shaft, a distance of 54 feet.
19,	Henry Llewellen, . .	18	0	0	Cayuga, D., L. & W. R. R. Co., ...	3d ward, Scranton. Lacka. co.,	Killed; run over by mine car.
June 8,	Jonathan Davis, . .	22	0	0	Capouse, L. I. & C. Co., ...	21st ward, Scranton Lacka. co.,	Killed; fall of top coal.
11,	William White, . .	40	1	5	Dickson, D. & H. C. Co., ...	21 ward, Scranton. Lacka. co., .	Seriously injured; fall of roof; died 2 hours after.
11,	Owen McLean, . .	19	0	0	Jermyn No. 4, J. Jermyn, ...	Dickson City borough, Lacka co.,	Kicked by a mule; died next evening.
27,	Andrew C. Swift, . .	26	1	3	Spencer, Spencer Bro., ...	Dunmore borough Lacka. co.,	Killed; fall of roof
27,	Martin Getspey, . .	50	1	4	Fair Lawn, F. C. Co. Lim., ...	7th ward, Scranton, Lacka co.,	Killed on slope; by runaway trip of cars.
July 2,	Patrick Malla, . . .	17	0	0	Dickson, D. & H. C. Co., ...	21 ward Scranton, Lacka. co., .	Killed; caught between cars outside.

5,	Parlel Fitz Ch rles,	36	0	0	N lonal, Wm. Connell & Co.,	20th ward, Scranton, Lacka. co.,	Injured; premature blast; died same e ening
15,	Daniel Quinn,	31	1	4	Erie, Hillside, C. & I. Co.,	Glenwood borough, Lacka. co.,	Injured; fall of roof; died 12 o'clock same night
20,	Wm. P. Davis,	34	1	4	Dodge, D., L. & W. R. R. Co.,	Lacka. twp. Lacka. co.,	Injured; f ll of roo ; died 2 days after.
Aug. 1,	Thomas E. Peters,	34	1	4	Oxford, D., L. & W. R. R. Co.,	5th ward, Scranton, Lacka. co.,	Killed; caught between hoisting carriage and bunting
12,	Andrew Quinn,	49	1	4	Coal Brook, D. & H. C. Co.,	Carbondale City, Lacka. co.,	Injured; fell of 14-inch coal; died on 15th.
16,	John Tanler,	42	1	0	Taylor, D. L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Killed; fall of top coal.
16,	Michael Welber,	46	1	0	do. do.,	do. do.	Killed; fall of roof.
18,	Thomas J. Alsop,	40	1	4	Jermyn No. 4, J. Jermyn	Dickson City bor,, Lacka. co.,	Injured; fall of coal; died 3 days after.
30,	Wm. W. Swartz,	44	1	11	Coal Brook, D. & H. C. Co.,	Carbondale City, Lacka. co.,	Killed; fall of roof.
Sept. 1,	Hugh Hart,	63	1	0	Hampton, D., L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Killed; fall of roof.
13,	Thomas Butler,	24	0	0	Dodge, D., L. & W. R. R. Co.,	do. do.	Killed; fall of co l.
16,	James Walker,	17	0	0	Pancoast, P. C. Co.,	Dickson City bor., Lacka. co.,	Injured; caught between car and rib; died same night.
19,	Andrew Sarah,	21	0	0	Spencers, Spencer Bro.,	Dunmore borough, Lacka. co.,	Killed; caught between large R. R. cars at breaker.
Oct. 1,	Steven Whitefield,	27	1	0	Leggitt's Creek, D. & H. C. Co.,	1st ward, Scranton, Lacka. co.,	Injured; fell of roof; died next day.
7,	James Cannor,	21	0	0	Meadow Brook, W. C. & Co.,	20th ward, Scranton, Lacka. co.,	Killed; fall of top coal.
20,	James Burke,	15	0	0	Pancoast, P. C. Co.,	Dickson City bor., Lacka. co.,	Killed; run over by loaded car in mines.
26,	James Joston,	16	0	0	Pierce, P. C. Co., Limited,	Archbald City bor., Lacka. co.,	Kicked by a mule; died next day.
31,	Robert York,	40	1	3	Hampton, D., L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Killed almost instantly; fall of roof.
Nov. 5,	Michael T. Burke,	40	1	4	Grassey Island, G. I. C. Co.,	Winton boro., Lacka. co.,	Killed; fall of rock roof.
9,	James McGee,	18	0	0	Eddy Creek, D. & H. C. Co.,	Olyphant bor., Lacka., co.,	Injured; caught between car and ribs; died 2 days after.
12,	William McDonnell,	15	0	0	Pancoast, P. C. Co.,	Dickson City bor., Lacka., co.,	Killed by a loaded trip of mine cars.
15,	Charles Tofi,	44	1	3	Filer's Slope, J. C. Co., Limited,	Winton bor., Lacka. co.,	Injured; riding on light car and fell off.
19,	Patrick Gillard,	40	1	1	Dodge, D., L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Killed; fall of top coal.
24,	James Baston,	35	0	0	Mount Pleasant, Wm. T. S.,	14th ward, Scranton, Lacka. co.,	Injured; fa l of roof; died 2 hours after.
Dec. 7,	Casper Reeder,	25	0	0	Holden Breaker, D. L. & Co.,	Lacka. twp., Lacka. co.,	Injured; foot caught between two rails and large railroad cars ran over him; died 7 o'clock same night.
16,	Thomas Johnson,	25	1	2	Dickson, D. & H. C. Co.,	2d ward, Scranton, Lacka. co.,	Injured; fall of roof; died same night.
17,	James Whelan,	24	0	0	Green Ridge, O. S. Johnson,	Dunmore bor., Lacka. co.,	Injured; fall of roof; died next day.
24,	John Narey,	50	1	0	Marvine, D. & H. C. Co.,	1st ward, Scranton, Lacka. co.,	Injured; fall of black rock; died 2 hours after.
24,	Adam Carter,	29	1	3	Dickson, D. & H. C. Co.	2d do. do.	Injured; fall of roof; died 39 hours after.
31,	Andrew Swerehorn,	30	1	0	Filer's, J. C. Co.,	Winton bor., Lackawanna co.,	Killed; fall of rock roof.
	57 Deaths.	57	32	110			

Causes of Fatal Accidents.

Falls of roof,	21	equal to	36 84	per cent.	Caught by carriage in shaft,	1	equal to 1.75 per cent.
Falls of coal,	11	do.	19.30	do.	Killed by cars outside,	2	do. 3.51 do.
Killed by mine cars,	11	do.	19.30	do.	Killed by bucket falling on him,	1	do. 1.76 do.
Explosion of CH_4 gas,	2	do.	3.51	do.	Caught in breaker machinery,	1	do. 1.75 do.
Explosion of powder, "blasting,"	3	do.	5 26	do.			
Falling down shafts,	2	do.	3.51	do.	Total,	57	100,00
Kicked by mules,	2	do.	3.51	do.			

TABLE 5.—List of accidents occurring in and about the mines of the First Anthracite Mine District for the year ended December 31, 1887.

Date of accident.	Name of Person Injured.	Age.	Married or single.	No. of orphans.	Name of Colliery.	Location.	Nature and Cause of Accident in Brief.
Jan. 6,	William A. Price,	48	.	.	14-foot vein, Von Storch,	2d ward, Scranton, Lacka. co.,	Slightly burned; explosion of ½ keg of powder.
7,	Michael Sweeney,	16	.	.	Marvine, D. & H. C. Co.,	1st ward, Scranton, Lacka. co.,	Fingers mashed; caught between sprag and car wheel.
7,	Daniel B. Williams,	45	.	.	Lackawanna Coal Company Mines,	Blakeley bor., Lacka. co.,	Slightly injured; shot through pillar.
8,	Peter Saultry,	15	.	.	Marvine, D. & H. C. Co.,	1st ward, Scranton, Lacka. co.,	Bone over eye fractured; kicked by a mule.
10,	Martin Mullin,	17	.	.	Manville, D. & H. C. Co.,	13th ward, Scranton, Lacka. co.,	Slightly injured; squeezed between car and prop.
10,	Charles Shene,	17	.	.	Bellevue Shaft, D., L. & W. R. R. Co.,	Lacka. twp. Lacka. co.,	Injured; squeezed about hips; car jumped track and caught him.
10,	Andrew Hanish,	24	.	.	Dodge, D., L. & W. R. R. Co.,	do. do.	Injured about head and hips; fall of roof.
11,	George Cooper,	40	.	.	Marvine, D. & H. C. Co.,	1st ward, Scranton, Lacka. co.,	Seriously injured; hit by coal from blast.
13,	Joseph Jenkens,	25	.	.	Pancoast, P. C. Co.,	Dickson City bor., Lacka. co.,	Slightly injured; foot caught between car and rib.
14,	Thomas Toole,	24	.	.	Dickson, D. & H. C. Co.,	2d ward, Scranton, Lacka. co.,	Seriously injured; fall of roof.
18,	James C. Brown,	41	.	.	Bridge, B. C. Co.,	14th ward, Scranton, Lacka. co.,	Severely burned; explosion of gas in old chamber.
20,	Wm. B. James,	40	.	.	Sloan, D., L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Badly burned by explosion of gas.
24,	Barney Flanegan,	15	.	.	Midland Tunnel, D. & H. C. Co.,	Fell twp., Lacka. twp.,	Foot slightly injured; mule stepped on it.
26,	John Baldison,	16	.	.	Grassey Island, D. & H. C. Co.,	Olyphant bor., Lacka. co.,	Leg broken in two places; car ran over it.
28,	William Kelly,	16	.	.	Pierce, P. C. Co., Lim.,	Archbald bor., Lacka. co.,	Leg broken; caught between car and door.
28,	John Andrews,	32	.	.	Dickson, D. & H. C. Co.,	2d ward, Scranton, Lacka. co.,	Slightly injured; fall of rock roof.
29,	Fenko Marshnek,	35	.	.	Simpson, N. W. C. Co., Lim.,	Fell twp., Lacka. co.,	Leg broken; slope rope slipped off sheave and struck his leg
31,	George Fissaher,	30	.	.	Jermyn No. 1, D. & H. C. Co.,	Jermyn bor., Lacka. co.,	Both legs broken; fall of 14-inch coal.
Feb. 1,	James Cleff,	17	.	.	Rackett Brook Breaker, D. & H. C. Co.,	Carbondale twp., Lacka. co.,	Injured by large railroad coal cars running over him outside of mine.
4,	John Stanton,	48	.	.	Cayuga, D., L. & W. R. R. Co.,	3d ward, Scranton, Lacka. co.,	Thumb cut off; fall of coal.
4,	William Bedine,	28	.	.	Dodge, D., L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Slightly injured; fall of coal.
4,	Chris. Gabriel,	45	.	.	Lackawanna Coal Company,	Blakely bor., Lacka. co.,	Leg broken; fall of top coal.
5,	Charles Hull,	22	.	.	Simpson, N. W. C. Co., Limited,	Fell twp., Lacka. co.,	Leg broken; car ran over it.
5,	Walter Samples,	16	.	.	Mount Pleasant W. T. Smith,	14th ward, Scranton, Lacka. co.,	Jaw-bone and teeth injured; kicked by a mule.
7,	Thomas Hagoin,	26	.	.	Cayuga, D., L. & W. R. R. Co.,	3d ward Scranton, Lacka. co.,	Slightly cut about hips and legs; fall of coal.
8,	John H. Davis,	27	.	.	Sloan, D., L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Slightly burned by explosion of gas
16,	John Walsh,	52	.	.	Dodge, D., L. & W. R. R. Co.,	do. do.	Leg and chest seriously injured; fall of roof.
16,	James Langan,	52	.	.	Midland Tunnel, D. & H. C. Co.,	Fell twp., Lacka. co.,	Some ribs fractured; stepped and fell on bumpers of car.
17,	Edward F. Mallady,	25		.	Capouse, L. L. & C. Co.,	21st ward, Scranton, Lacka. co.,	Seriously injured; fall of roof.

18,	John Swamson,	32	do. do.	do. do. do.	Slightly cut on leg, struck by coal from blast.
21,	William Sheaffer,	17	Richmond, E. H. C. & I. Co.,	do. do. do.	Leg broken; fell and car ran against it.
21,	Michael McCue,	59	Cayuga, D., L. & W. R. R. Co.,	31 ward, Scranton, Lacka. co.,	Slightly cut about head, and foot bruised; fall of bony coal.
25,	Patrick Dempsey,	38	Von Storch, C. Vein, D. & H. C. Co.,	2d ward, Scranton, Lacka. co.,	Slightly injured; fall of roof.
Mar. 3,	Patric Martin,	19	Coal Brook, D. & H. C. Co.,	Carbondale City, Lacka. co.,	Back slightly injured; fall of roof.
3,	John Pringle,	40	Manville, D. & H. C. Co.,	13th ward, Scranton, Lacka. co.,	Leg and arm broken; set off match causing immediate explosion.
4,	Patrick Coolihan,	60	Leggett's Creek, D & H. C. Co.,	1st ward, Scranton, Lacka. co.,	Back slightly hurt fall of bony coal.
11,	John Meehan,	27	Jermyn No. 4, J. Jermyn,	Dickson City bor., Lacka. co.,	Fingers severely bruised; jammed by iron rail.
12,	John Thomas,	42	Dodge, D., L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Slightly injured; explosion of gas
12,	A. J. Driscoll,	24	Grassey Island, G. I. C. C. Co., Limited,	Winton bor., Lacka. co.,	Seriously injured about head; shot through a pillar.
12,	John Kuzmlock,	27	do. do. do.	do do	Slightly injured by same shot.
15,	Alfred Crew,	15	Oxford, D., L. & W. R. R. Co.,	5th ward, Scranton, Lacka. co.,	Right arm broken; caught under empty car in mine.
18,	James Jones,	17	Taylor, D., L. & W. R. R. Co.,	Lacka. twp., Lacka co.,	Arm broken; thrown from cars.
19,	M. T. Green,	40	Mount Pleasant, Wm. T. Smith,	1st ward, Scranton, Lacka. co.,	Slightly injured; fall of roof.
30,	Lewis James,	59	Von Storch, D. & H. C. Co.,	2d ward, Scranton, Lacka. co.,	
30,	Llewellen Jones,	50	do. do.	do. do. do.	
30,	David Lewis,	38	do. do.	do. do. do.	Injured by an explosion of fire damp.
30,	William Littlejohn,		Dickson, D. & H. C. Co.,	do. do. do.	
30,	James Morgan,		do. do.	do. do. do.	
Apr. 2,	Anthony Newcomb,	16	Holden, D., L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Ankle slightly injured; foot caught in frog
5,	James Hughes,	23	Capouse, L. I. & C. Co.,	21st ward, Scranton, Lacka. co.,	Jaw-bone injured; struck by lever while putting loaded mine car on track.
8,	John Harris,	47	Forest City No. 2, H. C. & I. Co,	Clifford twp., Susq. co.,	Both these men were seriously injured; fall of roof slate: Harris leg broken; Watkins seriously bruised about body.
8,	Thomas Watkins,	40	do. do.	do. do.	
9,	Anthony Naugtin,	14	Manville, D., L. & W. R. R. Co.	13 h ward, Scranton, Lacka., co.,	One eye destroyed kicked by a mule.
12,	John Allen,	15	Wilson's Tunnel, D. & H. C. Co.,	Fell twp., Lacka. co.,	Slightly injured; kicked by a mule.
14,	Patrick McDonnell,	14	No. 3 Slope, D. & H. C. Co.,	Carbondale City, Lacka. co.,	Arm and collar-bone broken; riding on bumper of car and fell.
15,	Anthony O'Hara,	21	Green Ridge, O. S. Johnson,	Dunmore bor., Lacka. co.,	Injured internally; car jumped track and caught him under it.
20,	Owen Quinn,	60	Meadow Brook, Wm. Connell & Co.,	26th ward, Scranton, Lacka. co.,	Leg broken, scalp wound and other bruises; struck by mine car.
20,	Thomas Mullarkey,	15	Dickson, D. & H. C. Co.,	2d ward, Scranton, Lacka. co.,	Fell in front of cars, injured his right leg and hand.
22,	Gomer Hughes,	20	Oxford, D., L. & W. R. R. Co,	5th ward, Scranton, Lacka. co.,	Both these men badly burned; explosion of gas; went into place not working, against orders.
22,	Thomas Morgan,	20	do. do.	do. do do.	
23,	C. C. Battenberg,	45	White Oak Breaker, D & H. C. Co.,	Archbald bor., Lacka. co.,	Leg broken; struck by wire rope on culm plane.
23,	David Jones	21	Taylor, D., L. & W. R. R., Co.,	Lacka. twp., Lacka. co.,	Arm slightly injured; fall of roof.
25,	Patrick Jennings,	16	Pine Brook, L. I. & C. Co.,	7th ward, Scranton, Lacka. co,	Back slightly injured; caught between car and roof.
27,	Phillip Farrel,	17	Coal Brook, D. & H. C. Co.,	Carbondale City, Lacka. co.,	Left arm broken at wrist; caught by cars.
May 6,	Thomas Williams,	45	Richmond, E. H. C. & I. Co.,	21st ward, Scranton, Lacka. co.,	Back slightly injured; fall of roof.
9,	John Burke,	23	Pierce, Pierce C. Co. Limited,	Archbald bor., Lacka. co.,	Jaw bone broken; fall of coal.
10,	John Ryan,	30	Olyphant No. 2, D. & H. C. Co.,	Olyphant bor., Lacka co.,	Slightly injured; fall of roof.
12,	John Roland,	13	Sloan, D., L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Seriously injured; fall of top coal.
12,	Reese Thomas,	31	do. do.	do. do.	Slightly injured by same fall.
12,	William Thomas,	14	do. do.	do. do	Injured; kicked in face by a mule.
13,	Peter Munly,	20	Leggett's Creek, D. & H.C. Co.,	1st ward, Scranton, Lacka co.,	Leg crushed; car ran over it.

TABLE 5.—Continued.

Date of accident.	NAME OF PERSON INJURED.	Age	Married or single.	No. of orphans.	Name of Colliery.	Location.	Nature and Cause of Accident in Brief.
May 18,	William Kane,	14			Green R'dge, O. S. Johnson,	Dunmore bor., Lacka. co.,	Seriously injured; caught between car and rib.
19,	William Hinkley,	45			Richmond, E. H. C. & I. Co.,	21st ward, Scranton, Lacka. co.,	Slightly injured; fall of coal.
27,	James McHall,	37			Hampton, D., L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Seriously injured; fall of roof.
27,	William Elston,	39			Olyphant No 2, D. & H. C Co.,	Olyphant bor., Lacka. co.,	Slightly injured; fall of roof.
31,	Thos. A. Cavanagh,	30			Fair Lawn, F. L. C. Co., Limited,	7th ward, Scranton Lacka. co.,	Slightly burned; explosion of gas.
June 1,	Michael Mack,	15			Spencer, Spencer Bro.,	Dunmore bor., Lacka. co.,	Leg broken; fell under a car.
1,	Leoni Finigan,	16			Bridge, Bridge C. Co., Limited,	14th ward, Scranton, Lacka. co.,	Dangerously hurt; caught between car and rib.
4,	John Gilgallon,	45			Pancoast, P. C. Co.,	Dickson City bor., Lacka. co.,	Slightly burned; explosion of gas.
11,	George Cremer,	40			do. do.	do. do.	Knee-joint dislocated; a piece of coal slid against it.
18,	John McCarty,	17			Dodge, D., L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Hand slightly injured; caught between car and roof.
18,	Edward Askins,	40			Manville, D., L. & W. R. R. Co,	13th ward, Scranton, Lacka. co.,	Both these men were burned by an explosion of gas while in the act of timbering shaft; they carried naked lights against strict orders not to do so.
18,	Archy Davis,	40			do. do.	do. do. do.	
21,	Isaac Ashton,	32			Holden, D., L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	These five men were slightly burned by an explosion of fire-damp.
21,	Watkin Morgan,	53			do. do.	do. do.	
21,	Dave Reese,	39			do. do.	do. do.	
21,	John Beven,	35			do. do.	do. do.	
21,	Philip Mulderig,	45			do. do.	do. do.	
22,	George Williams,	62			Capouse, Lacka. I. & C. Co.,	21st ward, Scranton, Lacka. co.,	Slightly injured; fall of bony coal.
22,	Thomas Mellody,	32			Manville, D., L. & W. R. R. Co.,	13th ward, Scranton, Lacka. co.,	Slightly injured; fall of slate.
23	Patrick Bohan,	45			Taylor, D., L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Slightly injured by mine cars.
23,	William Davis,	16			Olyphant No 2, D. & H. C. Co.,	Olyphant bor., Lacka. co.,	Slightly injured; caught by mine cars.
27,	Michael Sweeney,	13			Fair Lawn Breaker, F. L. C. Co.,	7th ward, Scranton, Lacka. co.,	Arm broken; caught in breaker.
July 1,	Patrick Hamton,	25			Pyne, D. L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Left ankle dislocated; fall of slate.
5,	Charles Ibell,	28			Bellevue Slope, D., L. & W. R. R. Co.,	do. do.	Slightly injured on foot; fall of top coal.
5,	William B. Lewis,	30			Bellevue shaft, D., L. & W. R. R. Co.,	do. do.	Both these men were severely injured by fall of roof; Lewis arm broken; Garrey back injured.
5,	Jerry Garrey,	50			do. do.	do. do.	
8,	Wm. J. Sanderson,	38			Von Storch, D. & H. C. Co.,	2d ward, Scranton, Lacka. co.,	Slightly injured while in the act of lifting loaded car on track.
8,	Morris Williams,	45			Keystone, H. C. & I. Co.,	Glenwood bor., Lacka. co.,	Leg broken; struck by flying piece of coal from blast.
13,	Benjamin Evans,	46			Von Storch, D. & H. C. Co.,	24 ward, Scranton, Lacka. co.,	Ankle dislocated; fall of top coal.

19,	James Shay,	30		Taylor, D., L. & W. R. R. Co.,	Lacka. twp., Lacka. co.,	Slightly injured; fall of coal.
22,	John Evans,	14		Archbald, D., L. & W. R. R. Co.,	do. do.	Burned by kerosene igniting in bottle he carried in his pocket.
22,	Peter Newcomb,	22		Holden, D., L. & W. R. R. Co.,	do. do.	Slightly injured; fall of coal.
22,	Llewellen Llewellen,	32		Cayuga, D., L. & W. R. R. Co.,	3d ward, Scranton, Lacka. co.,	Cut slightly about head, arm and hand; fall of coal.
Aug. 2,	David J. Davis,	16		Central, D., L. & W. R. R. Co.,	15th ward, Scranton, Lacka. co.,	Leg badly injured; fell under trip of empty cars.
5,	John Lowrey,	21		Capouse, L. I. & C. Co.,	21st ward, Scranton, Lacka. co.,	Scalp wound on head; hit against post while jumping off cars.
10,	David Price,	45		Mount Pleasant, W. T. Smith,	14th ward, Scranton, Lacka. co.,	Leg broken in "New Shaft."
11,	Con Ludgate,	16		Taylor, D., L. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Leg slightly injured by falling under mine cars.
12,	Anthony Gillespie,	30		Grassey Island, G. I. C. Co.,	Winton bor., Lacka co.,	Slightly injured; leg cut by an axe he was using.
13,	Peter Mahon,	15		Diamond, D., L. & W. R. R. Co.,	21st ward, Scranton, Lacka. co.,	Slightly injured on leg; fell down on culm dump.
15,	Mike Coleman,	16		Oxford, D., L. & W. R. R. Co.,	5th ward, Scranton, Lacka. co.,	Severely burned by powder explosion; threw lighted squib into a keg.
15,	Owen Thomas,	30		do. do.	do. do.	Hip dislocated; fall of rock.
15,	James Cawley,	21		S. V. White, Winton C. Co.,	Winton bor., Lacka. co.,	Seriously injured; struck by coal from blast fired in next chamber.
16,	Alfred Paffrey,	42		Green Ridge, O. S. Johnson,	Dunmore bor., Lacka. co.,	Leg b oken.
17,	William Jones,	16		Central, D., L. & W. R. R. Co.,	15th ward, Scranton, Lacka. co.,	Slightly injured; fell off mine cars.
17,	Wm. Bridgewater,	53		Eddy Creek, D. & H. C. Co.,	Olyphant bor., Lacka. co.,	Leg broken; hit by coal from blast.
18,	Roger Haggerty,	47		Sloan, D , L. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Right leg severely cut; fall of top bony coal.
19,	Mike Cooley,	30		Holden, D., L. & W. R. R. Co.,	do. do.	Slightly injured; caught between body and top of culm car.
Sept. 1,	John Davitt,	19		Bellevue shaft, D., L. & W. R. Co,,	do. do.	Slightly injured; caught between a trip of cars in mines.
1,	John McGrail,	54		Grassey Island, G. I. C. Co.,	Winton bor., Lacka. co,,	Slightly injured by jumping from hoisting bucket in shaft; fell thirty feet.
2,	Samuel Coleman,	36		Jermyn No. 4, J. Jermyn,	Dickson City bor., Lacka. co.,	Severely burned but not seriously; explosion of gas.
3,	D. J. Evans,	45		Eaton, Jones, Simpson & Co.,	Archbald bor., Lacka. co.,	Temple and arm severely injured.
8,	Owen Sweeney,	55		Grassey Island, G. I. C. Co.,	Winton bor., Lacka. co.,	Slightly injured; fall of slate roof.
10,	John Morgan,	15		Capouse, L. I. & Coal Co.,	21st ward, Scranton, Lacka. co.,	Leg badly cut; caught between bumpers of mine cars.
12,	Wm. Westington,	43		Keystone, H. Coal & Iron Co.,	Glenwood bor., Lacka co:,	Severely crushed in breast; fall of rock.
13,	Patrick O'Boyle,			Marvine, D. & H. Canal Co.,	1st ward, Scranton, Lacka. co ,	Slightly injured; fall of rock.
14,	Thomas Owens,	38		Taylor, D., L. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Leg broken; fall of rock.
15,	James Hood,	34		Pierce, Jones, Simpson & Co.,	Archbald bor., Lacka. co.,	Back hurt; fall of coal.
17,	Timothy Cloherty,	28		Van Storch, D. & H. Canal Co.,	2d ward, Scranton, Lacka. co.,	Slightly injured; fall of top coal.
17,	Thomas Bell,	15		Pyne, D., L. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Left arm broken; fell in front of mine car.
19,	Richard Phillips,	35		Oxford, D., L. & W. R. R. Co.,	5th ward, Scranton, Lacka. co.,	Several cuts on arms, hips and legs; permature blast.
20,	James Swift,	20		Pine Brooke, Lackawanna I. & C. Co.,	7th ward, Scranton, Lacka. co.,	Slightly injured; fall of roof.
21,	William Wilson,	27		Pyne, D., L. & W. R. R. Co.,	Lackawanna twp , Lacka. co.,	Injured slightly; fall of roof.
22,	Richard Norton,	50		Hyde Park, D., L. & W. R. R. Co.,	5th ward, Scranton, Lacka. co.,	Ankle dislocated; fall of coal.
23,	Thomas Cummings,	39		Taylor, D., L. & W. R. R Co.,	Lackawanna twp., Lacka. co.,	Foot slightly injured; fall of coal.
24,	Daniel Kelliher,	17		Fair Lawn, F. L. C. Co., Limited,	7th ward, Scranton, Lacka. co ,	Leg bruised; caught by cars.
26,	John Egan,	16		Taylor, D., L. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Arm broken; struck by mine car.
26,	Patrick Collins,	50		Archbald, D., L. & W. R. R. Co.,	do. do.	Right leg fractured; fall of roof.
26,	Frank Mulhearn,	40		do. do.	do. do.	Hand caught under car.
27,	Edward Jackson,	15		Jermyn No. 4, John Jermyn,	Dickson City bor., Lacka. co.,	Slightly injured; kicked by mule.
27,	John Richards,	17		Bridge, Bridge Coal Co., Limited,	11th ward, Scranton, Lacka. co.,	Slightly injured; caught between cars in mine.

TABLE No. 5—Continued.

Date of accident.	NAME OF PERSON INJURED.	Age.	Married or single.	No of orphans.	Name of Colliery.	Location.	Nature and Cause of Accident in Brief.
Sept. 30,	John Horges,	15			Taylor, D., L. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Badly bruised about the eye.
30,	James Lynch,				Marvine, D. & H. Canal Co.,	1st ward, Scranton, Lacka. co.,	Badly bruised on back and breast; fall of rock.
Oct. 1,	Bryan Duffy,	47			Dodge, D., L. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Slightly injured on head and ankle; fall of coal.
3,	Peter Walsh,	15			Manville, D. & H. Canal Co.,	15th ward, Scranton, Lacka. co.,	Slightly injured; fell in front of a car in mines.
7,	Frank Freeman,	29			Tripps, D., L. & W. R. R. Co.,	21st ward, Scranton, Lacka. co.,	Slightly injured; premature blast.
15,	John Durkin,	16			Eaton, Jones, Simpson & Co.,	Archbald bor., Lacka. co.,	Slightly injured; fell under car.
17,	John Eichholzer,	15			Forest City, Hillside Coal & Iron Co.,	Clifford twp., Susquehanna co.,	Leg broken; caught by car in mines.
18,	William Holliday,	17			Taylor, D., L. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Head injured; squeezed between car and prop.
18,	James Nolan,	16			Cayuga, D., L. & W. R. R. Co.,	3d ward, Scranton, Lacka. co.,	Thumb cut off while in the act of coupling cars.
19,	Frank Green,	15			Green Ridge, O. S. Johnson,	Dunmore bor., Lacka co ,	Leg broken; mule fell on him.
24,	Martin Igo,	25			Pine Brook, Lackawanna I. & C. Co.,	7th ward, Scranton, Lacka. co.,	Seriously injured on back, legs paralyzed; fall of roof.
25,	Patrick Caffrey,	20			Diamond, D., L. & W. R. R. Co.,	21st ward, Scranton, Lacka. co.,	Foot slightly injured.
26,	William Hughes,	17			Dolph, Dolph Coal Co., Limited,	Winton bor., Lacka. co.,	Leg broken; fell in front of loaded car in mine.
26,	John Kelley,	16			Von Storch, Del. & Hud. Canal Co.,	2d ward, Scranton, Lacka. co.,	Shoulder blade broken; squeezed between mule and prop.
26,	Charles Kane,	16			S. V. White, Winton C. Co., Limited,	Winton bor., Lacka. co.,	Slightly injured by runaway trip of cars on plane.
27,	Joseph Mahady,	18			do. do.	do. do.	Seriously injured by same trip of runaway cars.
28,	John Toolan,	15			Pine Brook, Lackawanna I. & C. Co.,	7th ward, Scranton, Lacka. co.,	Severely injured by cars.
28,	Paul Bright,	38			Marvine, Del. & Hudson Canal Co.,	1st ward, Scranton, Lacka. co.,	Slightly hurt on back by coal from blast.
28,	Thomas Price,	17			Pyne, D., L. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Slightly injured; kicked by mule.
28,	Anthony Scott,	60			Wilson Creek, D., L. & H. Coal Co.,	Fell twp., Lacka. co.,	Slightly injured on body and heel by cars.
31,	John Brennan,	31			Bridge, Bridge Coal Co., Limited.,	14th ward, Scranton, Lacka. co.,	Slightly burned; explosion of gas.
Nov. 1,	Michael Butler,	36			Olyphant No. 2, D. & H. Canal Co.,	Olyphant bor., Lacka. co.,	Leg mashed and amputated; caught in sheave wheel on culm plane.
2,	Dominick Gelmartin,	65			Tripp, Del., Lacka. & W. R. R. Co.,	21st ward, Scranton, Lacka. co.,	These three men were going down the shaft in the safety carriage to work when the clutches caught on the guides, bringing the carriage to a sudden stop, which jarred and shook them severely.
2,	John McGloughlin,	58			do. do.	do. do.	
2,	Peter Rider,	20			do. do.	do. do.	
5,	Thomas H. Huddy,	34			Simpson, North-Western Coal Co.,	Fell twp., Lacka. co.,	Right leg broken; fall of rock.
5,	William J. Thomas,	52			Oxford, Del., Lacka. & W. R. R. Co.,	5th ward, Scranton, Lacka. co.,	Slightly burned on face and hands; explosion of gas.
7,	John King,	13			Cayuga, Del., Lacka. & W. R. R. Co.,	3d ward, Scranton, Lacka. co.,	Leg fractured; fell from beam in breaker.

8,	Mich. McGloughlin,	22	Archbald, Del., Lacka. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Right leg fractured; fall of roof.
8,	M. P. Riley,	45	do. do.	do. do.	Slightly injured; same fall.
9,	Daniel Campbell,	14	Rackett Brooke, D. & H. C. Co.,	Carbondale twp., Lacka. co.,	Injured slightly; run over by cars on plane outside.
9,	Michael O'Brien,	22	No. 2 Diamond, D., L. & W. R. R. Co.,	21st ward, Scranton, Lacka. co.,	Leg broken; piece of coal fell on it.
10,	Thomas Hodson,	47	Jermyn No. 4, John Jermyn,	Dickson City bor., Lack. co.,	Injured; felt between platform and car while loading same.
14,	William Davis,	45	do. do.	do. do.	Injured, three ribs broken; fall of roof.
14,	Joseph Richardson,	32	do. do.	do. do.	Slightly injured by same fall.
14,	Reese R. Griffiths, Jr.,	17	S. V. White, Winton Coal Co., Limited,	do. do.	Leg fractured while riding on mine locomotive.
15,	William Watkins,	21	Central, D., L. & W. R. R. Co.,	15th ward, Scranton, Lacka. co.,	Arm fractured in two places; fall of roof.
16,	James Watkins,	47	Oxford, D., L. & W. R. R. Co.,	5th ward, Scranton, Lacka. co.,	Two fingers cut off; fall of roof.
16,	Richard Jones,	31	Eddy Creek, Del. & Hud. Canal Co.,	Olyphant bor., Lacka. co.,	Severely injured on back; fall of top and bony coal.
17,	Peter Bernott,	40	Bridge, Bridge Coal Co., Limited,	14th ward, Scranton, Lacka. co.,	Burned slightly; explosion of gas.
17,	Owen W. Thomas,	32	Oxford, D., L. & W. R. R. Co.,	5th ward, Scranton, Lacka. co.,	Slightly injured; fall of roof.
18,	John Dixon,	44	Filer's slope, Jessup Coal Co.,	Winton bor., Lacka. co.,	Slightly injured; fall of roof.
18,	Thomas Barrett,	41	do. do.	do. do.	Slightly injured; same fall.
18,	Patrick Fahes,	20	Gypsey Grove, Penna. Coal Co.,	Dunmore bor., Lacka co.,	Leg broken; car run over it.
19,	Thos. O. McCormick.	16	Pancoast, Pancoast Coal Co.,	Dickson City bor., Lacka. co.,	Head badly cut; struck it against the rib.
19,	Evan Hopkins,	17	Sloan, Del., Lacka. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Arm splintered; kicked by a mule.
21,	Mike J. Quinn,	41	Coal Brook, D. & H. Canal Co.,	Carbondale City, Lacka. co.,	Slightly injured; fall of coal.
21,	James Gallagher,	38	Hampton, D., L. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Slightly injured; fall of coal.
25,	Mike O'Connor,	16	Coal Brook, D. & H. Canal Co.,	Carbondale City, Lacka. co.,	Slightly injured; caught between mine cars.
25,	Joseph Robinson,	43	Olyphant No. 2, D. & H. Canal Co.,	Olyphant bor., Lacka. co.,	Injured slightly; fall of roof.
25,	Patrick Flanigan,	55	Pierce, Jones, Simpson & Co,	Archbald bor., Lacka. co.,	Slightly injured by runaway trip of cars on outside plane.
28,	James Garraty,	16	Pine Brook, Lacka. Iron & Coal Co.,	7th ward, Scranton, Lacka. co.,	Slightly injured on hips; caught between cars.
30,	James Durkin,	16	Hampton, D., L. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Severely bruised on hips; caught between car and prop.
30,	Jake Moon,	18	Edgerton, Edgerton Coal Co., Limited,	Archbald bor., Lacka. co.,	Leg fractured; caught between mine cars.
Dec. 2,	Charles Jourdan,	43	Coal Brook, D. & H. Canal Co.,	Carbondale City, Lacka. co.,	Foot slightly injured; a piece of coal rolled on it.
2,	David Avery,	35	Leggett's Creek, D. & H. Canal Co.,	1st ward, Scranton, Lacka. co.,	Foot slightly hurt; fall of roof.
3,	John Herman,	60	Hyde Park, D., L. & W. R. R. Co.,	5th ward, Scranton, Lacka. co.,	Injured about body; caught between cars.
3,	Reese T. Evans,	65	No. 2 Diamond, D., L. & W. R. R. Co.,	21st ward, Scranton, Lacka. co.,	Arm fractured; fell from mine locomotive.
3,	George Evans,	26	do. do.	do. do.	Leg fractured; fell from mine locomotive.
3,	Albert Jellson,	16	Grassey Island, G. I. C. Co., Limited,	Winton bor., Lacka. co.,	Slightly injured; squeezed between car and rib.
3,	John Loftus,	26	Cayuga, D., L. & W. R. R. Co.,	3d ward, Scranton, Lacka. co.,	Calf of leg badly crushed; caught between trucks.
5,	William Burke,	15	Pancoast, Pancoast Coal Co.,	Dickson City bor., Lacka. co.,	Injured; cut on top of head.
5,	David W. Williams,	21	Pyne, D., L. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Severely injured by a fall of coal.
5,	William Dingle,	17	Pine Brook, Lackawanna I. & C. Co.,	7th ward, Scranton, Lacka. co,	Arm broken; fell under mine car.
6,	Thomas Battee,	50	Filer's slope, Jessup Coal Co., Limited,	Winton bor., Lacka. co.,	Ankle slightly injured; fall of rock.
8,	Charles Simpson,	40	Richmond, Elk Hill C. & I. Co.,	21st ward, Scranton, Lacka. co.,	Slightly injured; fall of roof.
8,	Michael McDonnell,	45	Pancoast, Pancoast Coal Co,	Dickson City bor., Lacka. co.,	Hip dislocated; fall of roof.
9,	Alf Payne,	45	Mount Pleasant, W. F. Smith,	14th ward, Scranton, Lacka. co.,	Rib fractured; fall of roof.
9,	Mike Hehir,	50	Hampton, D., L. & W. R. R Co,	Lackawanna twp., Lacka, co.,	Slightly injured; fall of bony coal.
9,	Griff M. Griffiths,	21	Capouse, Lackawanna I. & C. Co.,	21st ward, Scranton, Lacka. co.,	Slightly injured; fall of rock.
11,	William Shaffer,	16	Grassey Island, D. & H. Canal Co.,	Olyphant bor., Lacka. co.,	Leg slightly injured; kicked by mule.
12,	John Flemming,	48	Grassey Island, G. I. Coal Co., Limited,	Winton bor., Lacka. co.,	Compound fracture of leg; hit by coal flying from blast.
16,	Reese Simmes,	16	Leggett's Creek, D. & H. Canal Co.,	1st ward, Scranton, Lacka. co.,	Injured; fell in front of cars.
16,	John Smith,	37	Dodge, D., L. & W. R. R. Co.,	Lackawanna twp., Lacka. co.,	Back and ankle slightly injured; fall of roof.

TABLE No. 5—Continued.

Date of accident.	NAME OF PERSON INJURED.	Age.	Married or single.	No. of orphans.	Name of Colliery.	Location.	Nature and Cause of Accident in Brief.
Dec. 16,	William Yorrick, . .	22	. .	. .	Pierce breaker, Pierce Coal Co., ...	Winton bor.. Lacka. co., ...	Hip slightly injured; kicked by mule.
17,	John Surmers, . . .	16	. .	. .	Pierce mine, Pierce Coal Co., ...	Archbald bor., Lacka. co., . . .	Leg fractured; fell in front of mine cars.
17,	William Williams, .	23	. .	. .	Dodge, D., L. & W. R. R. Co., ...	Lackawanna twp., Lacka. co., .	Foot slightly injured; fall of roof.
19,	Patrick Cox, ...	40	. .	. .	Eaton, Jones, Simpson & Co., ...	Archbald bor., Lacka. co., . . .	Face and arms slightly burned by powder explosion.
21,	Thomas Connors, . .	25	. .	. .	Bridge, Bridge Coal Co., Limited, ...	14th ward, Scranton, Lacka. co.,	Arms and face burned; explosion of gas.
22,	John O'Neil, ...	14	. .	. .	Cayuga, D., L. & W. R. R. Co., ...	3d ward, Scranton, Lacka. co.,	Three fingers mashed; car ran over them.
23,	James Mahon, . . .	18	. .	. .	Von Storch, D. & H. Canal Co., ...	2d ward, Scranton, Lacka. co.,	Slightly injured; caught between car and prop in mine.
28,	John Moran, ...	30	. .	. .	Manville, D., L. & W. R. R. Co., ...	13th ward, Scranton, Lacka. co.,	Slightly injured; fall of roof.
31,	Patrick Rainy, . . .	26	. .	. .	Archbald, D., L. & W. R. R. Co., ...	Lackawanna twp., Lacka. co., .	Slightly injured; fall of bony coal.
31,	James Saltry, ...	22	. .	. .	Brisbin, D., L. & W. R. R. Co., ...	3d ward, Scranton, Lacka. co.,	Jaw bone fractured; fall of roof.

There were 225 accidents for year A. D. 1887.

TABLE No. 6—Giving names of collieries, mode of ventilation, amount of ventilation, condition of ventilation, number of splits of air, number of persons working in mines, pressure of water-gauge, number of horses and mules, &c.

Name of Collieries.	Mode of ventilation.	Dimension of Fan.		Revolutions per minute.	Pressure of water gauge in inches.	Dimensions or area D of furnace grate.	Number of air splits.	Total number of persons working in mines.	Amount of Ventilation.			Condition of ventilation.	Number of horses and mules.	Remarks.
		Diameter in feet.	Width of face in feet.						At intake.	At face of workings.	At outlet.			
Archbald Mines, F or Rock vein,	Fan,	12	3½	160	8/10	. . .	1	40	24 274	19,745	28,100	Good,	5	Mines owned and operated by Del., Lack. & W. R. R. Co.
Archbald Mines, H or New County vein,				160	10/10	. . .	5	210	81,690	84,025	87,110	do.	30	
Bellevue Shaft, G or Big vein,	Fan,	14	4	120	1 2/10	. . .	2	69	139,896	50,699	153 215	do.	11	
Bellevue Shaft, I or Clark vein,					1 2/10	. . .	3	102		84,200		do.	18	
Bellevue Slope, Rock vein,	Fan,	14	4	100	1	. . .	2	81	55 200	42,680	58 740	do.	15	
Brisbin Shaft, Big vein,	Fan,	14	4	120	8/10	. . .	2	53	43,181	38,430	45,120	do.	5	
Brisbin Shaft, Clark vein,					8/10	. . .	2	107	65 912	59,316	68,208	do.	9	
Continental Shaft, Clark vein,	Fan,	12	3½	126	7/10	. . .	7	242	85,000	70,350	90,500	do.	35	
Central Shaft, Rock vein,	Fan,	14	4	124	1 2/10	. . .	3	97	39,936	39,088	39,936	do.	11	
Central Shaft, Big vein,	Fan,	14	3½	144	1 1/10	. . .	7	217	135,002	116,596	152 060	do.	32	
Cayuga Shaft, Diamond vein,	Fan,	12	3½	155	1 2/10	. . .	2	88	32 805	30,856	35 545	do.	13	
Cayuga Shaft, Big vein,					1 2/10	. . .	2	81	64 834	54,804	65,836	do.	11	
Dodge Shaft, Rock vein,	Fan,	16	4½	88	7/10	. . .	2	83	66 564	51,170	62,712	do.	18	
Dodge Shaft, Big vein,					7/10	. . .	4	119	127,091	121,242	143,644	do.	25	
Diamond No. 2 Shaft, Diamond vein,	Fan,	14	4	100	8/10	. . .	1	60	70,120	65,215	72,180	do.	12	
Holden Shaft, Big vein,	Fan,	25	8	45	8/10	. . .	3	73	79,198	67,932	84 000	do.	11	
Holden Shaft, New county vein,					8/10	. . .	2	65	60,684	38,858	77,308	do.	12	
Hampton Shaft, Diamond vein,	Fan,	14	4	122	9/10	. . .	3	128	82.434	37.529	83,000	do.	25	
Hampton Shaft, Rock vein,					9/10	. . .	2	83		28,822		do.	15	
Hyde Park Shaft, Diamond vein,	Fan,	14	4	96	8/10	. . .	1	72	29,310	25,350	30,080	do.	13	
Hyde Park Shaft, New County vein,					8/10	. . .	2	79	43,980	43,416	51,384	do.	13	
Manville Shaft, Clark vein,	2 fans,	20	5	70	1 1/10	. .	7	311	97,470	94,925	123,000	do.	37	
		14	4											
Oxford Shaft, Big vein,	Fan,	14	4	100	1 3/10	. . .	3	86	139,886	50,110	141,930	do.	10	
Oxford Shaft, Clark vein,					1 3/10	. . .	4	125		70 613		do.	26	
Pyne Shaft, New County vein,	Fan,	14	4	150	8/100	. . .	2	60	21,340	23,942	23 122	do.	7	
Pyne Shaft, Clark vein,					8/100	. . .	5	183	81,590	73 889	109 314	do.	27	
Sloan Shaft, Big vein,	Fan,	12	3½	120	8/100	. .	2	49	34 184	25 552	38 069	do.	7	
Sloan Shaft, Clark vein,					8/100	. .	6	263	90 967	94 918	93 840	do.	47	
Taylor Shaft, New County vein,	2 fans,	14	4	140	1 1/10	. . .	5	265	141,515	133 114	175,200	do.	41	
Taylor Drift, Rock vein,	1 fan,	12	3½	110	1/10	. . .	2	48	61,640	56,600	67,480	do.	10	
Tripp Shaft, Clark vein,	2 fans,	14	4	121	1 2/10	. . .	8	229	221,317	214,748	224 812	do.	35	

TABLE No. 6—Continued.

NAME OF COLLIERIES	Mode of ventilation.	DIMENSION OF FAN. Diameter in feet.	DIMENSION OF FAN. Width of face in feet.	Revolutions per minute.	Pressure of water gauge in inches.	Dimensions or area D of furnace grate.	Number of air splits.	Total number of persons working in mines.	AMOUNT OF VENTILATION. At intake.	AMOUNT OF VENTILATION. At face of workings.	AMOUNT OF VENTILATION. At outlet.	Condition of ventilation.	Number of horses and mules.	Remarks.
Coal Brook Tunnel, Bottom vein,	Fan,	17	4	101	1 15/100	. . .	4	226	45 040	38 780	45 780	Good,	30	Mines owned and operated by D. & H. C. Co.
Midland Tunnel, Bottom vein,					1 15/100	. . .	4	169	54 460	32 920	59 270	do.	29	
Dixon Shaft, G or Big vein,	Fan,	12	4	114	1/16	. . .	3	24	79 074	62 449	81,952	do.	6	
Dixon Shaft, Clark vein,	Ventilated, Von Storch	Clark	veln	fan.	. . .	. . .	2	96	25,585	23,823	25 932	do.	16	
Eddy Creek Shaft, Grassey Island vein,	Fan,	20	5	90	7/100	. . .	9	350	97,380	79 785	108,120	do.	40	
Olyphant No. 2. Shaft, Grassey Island vein,					7/100	. . .	3	213	43 550	42 840	41,920	do.	22	
Grassey Island Shaft, Grassey Island vein,	Fan,	20	5	63	1/16	. . .	3	214	67 019	50 321	73 298	do.	27	
Jermyn No. 1 Shaft, Archbald vein,	Fan,	17	4	68	1/16	. . .	4	242	109 820	66 350	109,460	do.	36	
Leggitt's Creek Shaft, Diamond vein,	Fan,	20	5	86	1 3/100	. . .	3	44	45 020	44 400	45 320	do.	9	
Leggitt's Creek Shaft, G or Big vein,					1 3/100	. . .	6	148	125 810	127.900	132,460	do.	29	
Marvine Shaft, Diamond vein,	Fan,	20	5	80	7/100	. . .	1	23	10 210	9 660	10.980	do.	4	
Marvine Shaft, G or Big vein,					7/100	. . .	5	246	77.050	68 370	81 100	do.	32	
No. 1 Shaft Carbondale, Bottom vein,	Fan,	17	4	75	1 15/100	. . .	2	81	26 740	23 460	37,240	do.	8	
No. 3 Shaft Carbondale, Bottom and Top vein,	Fan,	17	4	97	1	. . .	3	104	30,120	5,950	21,350	do.	7	
White Bridge Tunnel, Bottom and Top vein,					1	. . .	3	134	39,080	35 720	53,180	do.	17	
Powderly Slope, Top vein,	Fan,	17	4	61	9/16	. . .	2	91	36 772	24 126	32,522	do.	9	
Powderly Slope, Bottom vein,					9/16	. . .	2	117	29 983	27.210	37 472	do.	16	
Von Storch Slope, Diamond vein,	Fan,	20	5	85	7/100	. .	2	88	31,300	27 600	36.100	do.	14	
Von Storch Slope, G or Big vein,					7/100	. .	2	106	43 860	37.200	50 100	do.	14	
Von Storch Shaft, Clark vein,	Fan,	17	5	100	1 15/100	.	5	240	82.660	67,340	120 600	do.	34	
White Oak Slope, Archbald vein,	Fan,	17	4	58	7/100	.	4	137	46 695	34.445	47 865	do.	13	
White Oak Drift, Archbald vein,	Furnace,	.	.	.	.	64	2	59	24 664	15 985	27,110	do.	10	
Shaft No. 1 Dunmore, Dunmore vein,	Fan,	17½	5	25	. . .	. .	2	24	15,100	6 130	15 130	do.	1	. . .
Shaft No. 2 Dunmore, Dunmore Top vein,	Furnace,	. . . .	. . . .	. .	. . .	27	1	20	10 000	8 000	10 000	do.	2	. . .
Shaft No. 2 Dunmore, Dunmore Bottom vein,	Furnace,	. . . .	. . . .	. . .	. . .	27	1	59	10 500	9 000	11 000	do.	5	. . .
Shaft No. 3 Gypsy Grove, Dunmore Top vein,	Fan,	17½	5	70	. .	. .	1	62	18,200	17 583	18.643	do.	6	. . .
Shaft No. 3 Gypsy Grove, D'more, Middle vein,					. .	. .	1	58	14 333	13,893	14.683	do.	6	. . .
Shaft No. 4 Gypsy Grove, D'more, Bottom vein,					. .	. .	2	132	36 916	36 066	37,763	do.	18	. . .
Shaft No. 5 Dunmo e, "3" Dunmore veins,	Fan,	17½	5	75	. .	. .	7	192	79,030	70 000	80 000	do.	20	. . .
Bridge Shaft, Clark and New County veins,	Fan,	21	5½	56	. . .	. .	4	140	102,114	92 721	104.300	do.	30	. . .
Belmont Tunnels, Carbondale Bottom vein,	Fan,	6	3	175	.	.	3	98	29.420	25 700	35 200	do.	11	. . .
Capouse Shaft, Rock and Big veins,	2 fans,	18	5	90	7/16	. .	7	428	131,200	125 760	143,100	do.	71	. . .
		20	5	80	5/16									
Dolph Tunnel,	Fan,	15	4	60	. . .	. . .	3	153	36,420	30 230	36,630	do.	18	. . .

Eaton Tunnel, Archbald vein,	Fan,	15	3½	70			4	237	92 100	89,100	93 150	do.	22	
Eaton Shaft, Archbald vein,	Fan,	12	3½	70			1	20	17.800	17.000	17,940	do.	2	
Edgerton Tunnel, Archbald vein,	2 furnaces,					200	3	202	71,240	42.000	72 300	do.	20	
Erie Shaft, Archbald vein,	Fan,	17¼	4	58	3/10		5	320	75 769	65.480	78 640	do.	38	
Fair Lawn Slope, Dunmore No. 1, 2, and 3 vein,	Disc fan,	5	2	450			3	115	46 755	39.670	53.915	do.	10	
Filer's Slope,	Fan,	15	4½	150			2	143	29.866	27.826	34 843	do.	15	
Forest City Slope,	Fan,	12	4	120	5/10		2	144	53 680	28.140	67,620	do.	9	
Forest City Shaft No. 2,	Fan,	18	5	50	6.5/100		2	114	57.855	41,039	71 020	do.	11	
Grassey Island Shaft,	Fan,	12	3½	60			3	168	39,240	19 670	44 420	do.	11	
Grassey Island Tunnel,	Double furnace,					72	1	60	18,469	11,540	20,220	do.	6	
Green Ridge Slope,	Fan,	12	3½	96			5	286	59,521	43,155	60.185	do.	16	
Jermyn No. 4,	Fan,	20	5	63	1 5/10		6	399	111.070	87.361	112,135	do.	39	
Keystone Tunnel,	2 furnaces,					96	3	224	50,380	46.685	52 765	do.	26	
Lackawanna Shaft,	Fan,	20	5	55			4	288	86,849	49 320	89 780	do.	33	
Meadow Brook Shaft,	Fan,	14	3½	120	7/10		5	228	68.660	61 680	70,920	do.	35	
Meadow Brook Tunnel,	2 furnaces,					112	2	75	38,360	34,500	43.170	do.	16	
Mount Pleasant Slope,	Fan,	14	4	104	1		4	224	61,920	61.520	63.880	do.	34	
National Shaft and Slope,	Fan,	14	3½	120	6/10		5	143	71 109	64 032	72 160	do.	21	
Pine Brook Shaft,	Double fan,	17⅞	4	60	1 2/10		6	346	111,000	94,830	142,500	do.	35	
Pierce Slope and Tunnel, Archbald vein,	2 fans,	12	4	70			3	220	90,145	43,621	103 160	do.	20	
		12	3	60										
Pancoast Shaft,	Fan,	20	5	60			7	342	96,152	92 010	112,230	do.	44	
Richmond Shaft,	Fan,	10	3½	115			2	51	17,500	12,500	18,000	do.	10	
Stafford Shaft,	Fan,	9	3	120	3/10		2	38	31,950	28,008	33,792	do.	3	
S. V. White Tunnel,	Furnace,					40	2	150	19,800	7 850	32.140	do.	10	
Spencer Shaft,	Fan,	14	5	95			4	194	37.230	37,560	38,160	do.	17	
Simpson Slope,	Fan,	16	5	70			2	169	59,040	58,810	59.360	do.	17	
Watkin's Slope and Tunnel,	Furnace,				36		1	49	19,000	14,170	20,700	do.	6	

NOTE.—There are 67 fans and 13 furnaces.

SECOND ANTHRACITE DISTRICT.

Office of Inspector of Mines.
Pittston, Pa., *March 8, 1888.*

Hon. Thomas J. Stewart,
Secretary of Internal Affairs:

Sir: I have the honor of presenting herewith my annual report for the year 1887.

The report contains the usual tables showing the number of accidents, fatal and non-fatal, arising from various causes during the year of 1887, which, I am sorry to report, is considerable in excess of those the year previous.

The report shows that the production of coal during the year was 5,043,516 tons, an increase over the production of 1886 equal to 810,060 tons. The number of fatal accidents was 52, leaving 21 widows and 69 orphans, an increase of 19 fatal accidents, 5 widows and 22 orphans as compared with those of 1886.

The number of non-fatal accidents was 146, of which a large number were of such a slight character that the parties were only off work for a day or two.

Respectfully yours,

H. McDonald,
Inspector of Mines.

The Total Amount of Coal Mined during the Year 1887.

Pennsylvania Coal Company,	1,214,986.00
Delaware and Hudson Canal Company,	434,954.19
Lehigh Valley Coal Company,	861,644.10
Delaware, Lackawanna and Western Railroad Company,	274,308.01
Miscellaneous coal companies,	2,257,623.05
Total of all companies,	5,043,516.15

Number of Fatal Accidents and Amount of Coal Produced per Life Lost.

NAMES OF COMPANIES.	Number of lives lost.	Coal mined per life lost.
Pennsylvania Coal Company,	10	121,498
Delaware and Hudson Canal Company,	5	86,990
Lehigh Valley Coal Company,	8	107,705
Delaware, Lackawanna and Western Railroad Company,	2	137,154
Miscellaneous coal companies,	27	83,615
Total of all coal companies,	52	96,590

Number of widows, 21; orphans, 69.

Number of Fatal and Serious Accidents and Amount of Coal Produced per Each Person Injured.

NAMES OF COMPANIES.	Killed or injured.	Tons coal mined per person killed or injured.
Pennsylvaniania Coal Company,	24	50,624
Delaware and Hudson Canal Company,	11	39,541
Lehigh Valley Coal Company,	47	18,332
Delaware, Lackawanna and Western Railroad Company,	17	16,135
Miscellaneous coal companies,	99	22,804
Total, all companies,	198	25,477

Classification of Fatal and Non-fatal Accidents.

CAUSE OF ACCIDENTS.	Killed.	Seriously injured.
By explosions of carbureted hydrogen gas,	2	13
By falling down shafts,	6	. . . .
By falls of roof and coal,	24	48
By cars under ground,	12	30
By explosions of powder and blasts,	4	19
Miscellaneous causes inside,	1	20
Miscellaneous causes outside,	3	16
Total,	52	146

Examination of Applicants for Mine Foreman's Certificates.

As provided in article eighth of the act of June 30, 1885, the examiners were H. McDonald, Inspector Second District, Pittston, Pa.; A. Bryden, superintendent, Pittston, Pa., and Thomas Langan, miner, Pleasant Valley, Pa. The examination of applicants for certificates of qualification was held in Pittston, Pa., June 21, 1887.

The following names were recommended for certificates of qualification:

Andrew H. Allen, ... Pittston, Luzerne county.
W. G. Thomas, ... Scranton, Lackawanna county.
Howell J. Brooks, ... Scranton, Lackawanna county.
Robert Martin, ... Plains, Luzerne county.
David Alexander, ... Pittston, Luzerne county.
Isaac E. James, ... Pittston, Luzerne county.
Thomas G. Thomas, ... Scranton, Lackawanna county.
Thomas P. Langan, ... Duryea, Luzerne county.
James Allen, ... Avoca, Luzerne county.
John Meade, ... Avoca, Luzerne county.
James Harding, ... Pittston, Luzerne county.
Bernard Hallerin, ... Pittston, Luzerne county.
Archibald McQueen, ... Avoca, Luzerne county.
James Thompson, ... Pittston, Luzerne county.
John F. Evans, ... Parsons, Luzerne county.
Adam John, ... Pittston, Luzerne county.
David J. Morgan, ... Wilkes-Barre, Luzerne county.
Peter Farrell, ... Avoca, Luzerne county.
S. P. Williams, ... Pittston, Luzerne county.
Daniel Dooris, ... Pittston, Luzerne county.

The following names were recommended for certificates of service:

Alexander Bryden, ... Pittston, Luzerne county.
A. G. Mason, ... Pittston, Luzerne county.

A Brief Review of Fatal Accidents.

During the year 1887, I am sorry to have to report an increase of fatal and non-fatal accidents in this district, an increase over 1886, of 19 fatal and 50 non-fatal accidents. By examining tables 4 and 5, it will be clearly seen that a large number of accidents could have been avoided by ordinary care on the part of the victims themselves. While a great number I must say are caused by inexperienced workmen not knowing (and here let me say not taking the pains to know) when they are in danger. Accidents will occur in and around the mines with the best care that can be taken by all concerned in the mining of coal. Therefore it behooves every man and boy that works in, or around the mines, to be on the alert to guard against danger and accidents to himself or his fellow workman. It is my earnest desire

to see that time arrive when every workingman will exert that care for self preservation which is his duty to himself and family likewise to his fellow workmen in helping to reduce the accidents which are so large in the mining and preparing of coal.

Prosecutions for Violation of the Mine Law in 1887.

Lewis Leppard, slate picker, ten (10) years of age, employed in the Florence Coal Company Elmwood breaker, located in Pittston township, Luzerne county, was instantly killed by falling on a revolving screen. I immediately brought suit against George Kiefer, outside foreman, and John Leppard, the father of the boy, for violation of the mine laws. The outside foreman for employing the boy without receiving a certificate of age from the parents. The father for falsely telling the foreman that his boy Lewis was of the required legal age. The case was tried before the Honorable Judge Woodward, of Luzerne county. The parties pleaded guilty to the charges.

Joseph Hornsby, shaft sinker, employed in Nelson Cowan's Schooley Shaft, located in Exeter borough, Luzerne county, was instantly killed by falling down the shaft. He was putting on guides in the shaft to conduct the carriage, and while standing on a plank driving a spike into one end of guide, he missed his blow, causing him to loose his balance and falling down to the bottom of the shaft, a distance of five hundred feet. I brought suit against Richard Appbly, assistant mine boss in charge, and Thomas Dougherty, charge man of the shift, for violation of the fourth clause, section 22, of Article 4, of the mine law. The case was tried before the Honorable C. E. Rice, President Judge of Luzerne county. The parties pleaded guilty to the charge.

TABLE No. 1.—Showing Location of Collieries in the Second Anthracite Mine District.

NAME OF COLLIERY.	NAME OF OPERATOR.	LOCATION—COUNTY.	NAME OF SUPERINTENDENT.	POST-OFFICE ADDRESS.
Barnum Shaft No. 1,	Pennsylvania Coal Company,	Marcy twp., Luzerne co.,	A. Bryden, asst. Alex. Bryden,	Pittston Luzerne county.
Barnum Shaft No. 2,	do. do.	do. do.	do. do.	do. do.
Laws Shaft,	do. do.	Pittston twp., Luzerne co.,	Wm. Law, asst. John Law,	do, do.
Shaft No. 13,	do. do.	Old Forge twp., Lacka. co.,	do. do.	do. do.
Old Forge Shaft,	do. do.	do. do.	do. do.	do. do.
Shaft No. 9,	do. do.	Hughestown bor., Luzerne co,,	A. Bryden, asst. Alex. Bryden,	do. do.
Shaft No. 10,	do. do.	do. do.	do. do.	do. do.
Shaft No. 10, Jr.,	do. do.	do. do.	do. do.	do. do.
Abbott's Slope,	do. do.	do. do.	do. do.	do. do.
Shaft No. 1,	do. do.	do. do.	do. do.	do. do.
Shaft No. 8,	do. do.	do. do.	do. do.	do. do.
Slope No. 4,	do. do.	Jenkins twp., Luzerne co.,	do. do.	do. do.
Shaft No. 7,	do. do.	do. do.	Wm. Law, asst. John Law,	do. do.
Shaft No. 5,	do. do.	do. do.	do. do.	do. do.
Shaft No. 6,	do. do.	do. do.	do. do.	do. do.
Shaft No. 11,	do. do.	do. do.	do, do.	do. do.
Shaft and Slope No. 14,	do. do.	do. do.	do. do.	do. do.
Hoyte Shaft,	do. do.	do. do.	do. do.	do. do.
Mill Creek Shaft and slope,	Del. & Hudson Canal Co.,	Plains twp., Luzerne co.,	A. H. Vandling, asst. C. H. Scharer,	Scranton, Lacka. county.
Pine Ridge Shaft,	do. do.	Miner's Mills bor., Luzerne co.,	do. do.	do. do.
Laurel Run Slope,	do. do.	Parsons bor., Luzerne co.,	do. do.	do. do.
Prospect Shaft,	Lehigh Valley Coal Company,	Plains twp., Luzerne co.,	Fred. Mercur, Wm. Samuels, gen. inside foreman,	Wilkes-Barre, Luzerne co.
Oakwood Shaft,	do. do.	do. do.	Fred. Mercur, Wm. Samuels, gen. inside foreman,	do. do.
Wyoming Shaft,	do. do.	do. do.	Fred. Mercur, asst. Wm. Lyons,	do. do.
Henry Shaft,	do. do.	Parsons bor., Luzerne co.,	do. do.	do. do.
Mineral Spring Slope,	do. do.	Plains township, Luzerne co.,	Fred. Mercur,	do. do.
Coal Brook Slope,	do. do.	Exeter bor., Luzerne co.,	do. do.	do. do.
Exeter Shaft,	do. do.	Pittston twp., Luzerne co.,	Fred. Mercur, asst. A. G. Mason,	do. do.
Heidelburg Shaft,	do. do.	do. do.	do. do.	do. do.
Ontario Slope,	do. do.	Wyoming twp., Luzerne co.,	do. do.	do. do.
Maltby Shaft,	do. do.	Plains twp., Luzerne co.,	Fred. Mercur,	do. do.
Midvale Slope,	do. do.		do. do.	do. do.
Pettibone Shaft,	Del. Lacka. & West. R. R. Co.,	Kingston twp., Luzerne co.,	W. R. Storrs, B. Hugher, gen. inside foreman,	Scranton, Lacka. county.
Hunt Shaft,	do. do.	Wyoming twp., Luzerne co.,	W. R. Storrs, B. Hugher, gen. inside foreman,	do. do.
Hallstead Shaft,	do. do.	Marcy twp., Luzerne co.,	W. R. Storrs, B. Hugher, gen. inside foreman,	do. do.
Butler Slope and Shaft,	S. B. Bennett,	Pittston twp., Luzerne co.,	S. B. Bennett,	Pittston, Luzerne county.
Mosier Slope and Shaft,	Butler Coal Company,	Hughestown bor., Luzerne co.,	F. C. Deninney,	do. do.
Twin Shaft,	do. do.	Pittston bor., Luzerne co.,	do. do.	do. do.
Forty Fort Shaft,	Wyoming Valley Coal Co.,	Kingston twp., Luzerne co.,	J. H. Swoyer, Wm. McCullough, gen. inside foreman,	Wilkes-Barre, Luzerne co.
Harry E., Shaft and Slope,	do. do.	do. do.	J. H. Swoyer, Wm. McCullough, gen. inside foreman,	do. do.

TABLE No 1.—Continued.

NAME OF COLLIERY.	NAME OF OPERATOR.	LOCATION—COUNTY.	NAME OF SUPERINTENDENT.	POST-OFFICE ADDRESS.
Boston Slope and Drift,	Nelson Cowan,	Jenkins twp., Luzerne co.,	Nelson Cowan,	Pittston, Luzerne county.
Schooley Shaft,	do. do	Exeter bor., Luzerne co.,	do. do.	do. do.
Bernice Drift,	State Line & Sullivan R. R. Co.,	Bernice, Sullivan co.,	J. O. Blight, asst. C. R. Claghorne,	Towanda, Bradford county.
Bennett Shaft,	Waddell and Waters,	Plains twp, Luzerne co.,	James Waddell,	Kingston, Luzerne county.
Mill Hollow Shaft,	Thomas Waddell,	Luzerne bor., Luzerne co.,	do. do.	do. do.
Black Diamond Shaft,	John C. Haddock,	Kingston twp., Luzerne co.,	James B. Davis,	Plymouth, Luzerne county.
Clear Spring Shaft,	Clear Spring Coal Co.,	West Pittston bor., Luzerne co.,	J. L. Cake,	Pittstyn, Luzerne county.
Consolidated Shaft and Slope,	Hillside Coal & Iron Co.,	Plea ant Valley bor., Luzerne co.,	W. A. May,	Scranton, Lacka. county.
Dunn Shaft,	Penna. Anthracite Coal Co.,	Old Forge twp., Lacka. co.,	John Jern yn,	do. do.
Sibley Shaft,	Elliott, McClure & Co.,	do. do.	James C. McClure,	do. do.
Greenwood Shaft,	Penna. Anthracite Coal Co.,	Lacka. twp. Lacka. co.,	W. G. Thomas,	do. do.
Elmwood Shaft,	Florance Coal Co.,	Pittston twp., Luzerne co.,	Austin Moore,	Avoca, Luzerne county.
Enterprise Shaft and Slope,	A. Langdon,	Plains twp., Luzerne co.,	C. D. Simpson,	Scranton, Lacka. county.
East Boston Shaft,	W. G. Payne & Co.,	Kingston twp., Luzerne co.,	E. F. Payne,	Kingston, Luzerne county.
Fairmount Shaft,	H. W. Harris & Co.,	Pittston twp., Luzerne co.,	H. W. Harris,	Pittston, Luzerne county.
Hillman Slope,	H. Baker Hillman,	Plains twp., Luzerne co.,	H. B. Hillman,	Wilkes-Barre, Luzerne co.
Keystone Slope and Drift,	Keystone Coal Co.,	do. do.	David Evans,	Pittston, Luzerne county.
Columbia Shaft and Tunnel,	Old Forge Coal Co., Limited.	Marcy twp., Luzerne co.,	John A. Mears,	Scranton, Lacka. county.
Katy Did Tunnel,	John M. Robertson,	Moosic, Lacka. co.,	John M. Robertson,	Moosic, Lacka. county.

TABLE No. 2.—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employés, number of persons killed and injured, number of kegs of powder used, &c., in the Second Anthracite Mine District for the year ending December 31, 1887.

Names of Collieries.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	No. days worked.	No. persons employed.	No. fatal accidents.	No. non-fatal accidents.	No. kegs powder used.	No. steam boilers.	No. horses and mules.	No. mine locomotives.
Pennsylvania Coal Company:											
Barnum, two shafts,	Marcy township, Luzerne co.,	189,067.00	189,067.00	215	474	2	1	7,081	19	58	. . .
Central Breaker, Laws Shaft,	Pittston township, Luzerne co,	86,643.00	86,643.00	222	246	. . .	1	7,081	16	27	. . .
Central Breaker, Shaft No. 13,	Old Forge twp., Lackawanna co.,	85,052.00	85,052.00	222	183	. .	.	2,564	10	20	. . .
Old Forge, two shafts,	do. do.	160,241.00	160,241.00	228⅝	332	1	2	5,642	13	32	. . .
No. 10 Breaker, Shaft No. 9,	Hughestown bor., Luzerne co.,	78,910.00	78,910.00	207¾	153	. .	. .	2,492	7	21	. . .
No. 10 Breaker, Shaft No. 10, 10 Jr., & Abbott's Slope,	do. do.	109,933.00	109,933.00	217½	341	. .	. .	4,388	14	43	. . .
Owen Breaker, Shaft No. 1,	do. do.	62,877.00	62,877.00	260¼	131	1	. . .	2,232	5	16	. .
Owen Breaker, Shaft No. 8,	do. do.	62,148.00	62,148.00	260¼	234	. . .	. .	2,090	10	16	. . .
Owen Breaker, Slope No. 4,	Jenkins township, Luzerne co.,	72,609.00	72,609.00	251½	153	4	1	1,905	6	31	. . .
Owen Breaker, Shaft No. 7,	do. do.	92,576.00	92,376.00	260½	162	. .	1	1,867	12	23	. . .
No. 6 Breaker, Shaft No. 5,	do. do.	56,801.00	56,801.00	248	130	1	1	1,602	9	21	.
No. 6 Breaker, Shaft No. 6,	do. do.	56,241.00	56,241.00	248	231	. . .	. . .	1,727	9	23	. . .
No. 6 Breaker, Shaft No. 11,	do. do.	26,684.00	26,684.00	248	63	. . .	. .	536	3	17	. . .
Shaft and Slope No. 14,	do. do.	75,404.00	75,404.00	111	363	. . .	4	2,764	16	39	.
Total, Pennsylvania Coal Company,		1,214,986.00	1,214,986.00	3,110¼	3,196	9	11	43,941	149	397	. .
Delaware and Hudson Canal Company:											
Mill Creek Shaft and Slope,	Plains township, Luzerne co.,	102,814.02	102,814.02	209¼	238	2	4	2,072	23	32	. . .
Pine Ridge Shaft,	Miners' Mills bor., Luzerne co.,	202,016.16	198,590.12	250½	468	2	2	5,391	21	53	. . .
Laurel Run Slope,	Parsons borough, Luzerne co.,	130,125.01	130,125.01	230¼	352	1	. . .	3,595	12	53	. .
Total, Delaware and Hudson Canal Co.,		434,954.19	431,529.15	690	1,058	5	6	11,058	56	138	. . .

Pennsylvania Coal Company.—The coal used to generate steam is included in the above. One fatal and 3 non-fatal accidents in sinking shaft not included in the above.
Delaware and Hudson Canal Company.—The coal consumed to generate steam is not included in the above.

TABLE No. 2—Continued.

NAMES OF COLLIERIES.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	No. days worked.	No. persons employed.	No. fatal accidents.	No. non-fatal accidents.	No. kegs powder used.	No. steam boilers.	No. horses and mules.	No. mine locomotives.
Lehigh Valley Coal Company:											
Prospect, two shafts,	Plains township, Luzerne co.,	317 853.03	317,706.13	223⅛	635	3	23	7 905	34	85	3
Wyoming Shaft,	do. do.	143 187.03	135,187 03	178½	318	2	8	5.150	18	58	. . .
Henry Shaft,	do. do.	186,258.14	175.817 14	207⅜	408	1	6	5,457	18	66	. . .
Mineral Spring, two slopes,	Parsons borough, Luzerne co.,	90,306.07	84,536 07	202¼	217	2	2	2,800	12	26	1
Exeter Shaft,	Exeter borough, Luzerne co.,	10,032.10	9.968.60	36	209	. . .	. . .	390	18	23	1
Heidelberg Shaft and Slope,	Pittston township, Luzerne co.,	114,006.13	113,785.13	202	310	. . .	. . .	3,585	17	85	1
Total, Lehigh Valley Coal Company,		861,644 10	837,001.10	1,049⅜	2 097	8	39	25,287	117	298	6
Del., Lacka. & Western R. R. Co.:											
*Pettibone Shaft,	Kingston township, Luzerne co.,	. . . . .	. . . .	. . . . .	90	. . .	. .	. .	. .	. . .	. . .
Hunt Shaft.	Wyoming, Luzerne co.,	59,150 19	52,811.19	209⅜	236	. . .	7	2,876	12	36	. .
Hallstead Shaft,	Marcy township, Luzerne co.,	215 157.02	203,583.02	210½	493	2	8	6,847	15	61	. .
Total, Del., Lacka. & Western R. R. Co.,		274,308.01	256,395.01	420	819	2	15	9,723	27	97	.
Miscellaneous coal companies:											
Butler Shaft and Slope,	Pittston township, Luzerne co.,	30.150.00	29 000 00	215	125	. . .	2	1 850	7	8	. . .
Mosier Shaft and Slope,	Hughestown bor., Luzerne co.,	98,130 05	95 837.13	222	247	. .	3	3 009	12	22	. . .
Twin Shaft.	Pittston borough, Luzerne co.,	51.129 05	47,615 04	169⅜	165	4	6	2 363	10	22	. .
Forty Fort Shaft,	Kingston township, Luzerne co.,	110,750.00	100,600.00	253¼	276	1	4	5,412	13	34	. . .
Harry E. Shaft and Slope,	do. do.	140 850.00	128 700 00	249	394	1	2	6 920	16	45	. . .
Boston Slope and Drift,	Jenkins township, Luzerne co.,	43,232 00	40 518 00	180	163	. .	1	1,838	7	25	. . .
Schooley Shaft,	Exeter borough, Luzerne co.,	103,138 00	96 203.00	209	272	4	6	3 455	21	51	. . .
Bernice Drift,	Bernice, Sullivan co.,	92,679 07	90,018.08	273½	249	. . .	1	1,292	2	41	. .
Bennett Shaft,	Plains township, Luzerne co.,	112.362.06	107,823.06	234	227	.	2	4 139	10	22	. . .
Mill Hollow Shaft,	Luzerne borough, Luzerne co ,	62 913.06	57 750.00	215¾	213	2	7	1 960	14	14	. . .
Black Diamond Shaft,	Kingston township, Luzerne co.,	135 450 00	120,448 00	176	304	2	9	5 606	19	32	. . .
Clear Spring Shaft,	West Pittston bor., Luzerne co.,	159,425.13	149,170.16	191¾	367	2	. . .	4,557	14	51	. . .

Consolidated Shaft and Slope,	Pleasant Valley bor., Luzerne co.,	118,823.03	117,911.18	189⅛	376	1	2	4.215	11	43	1
Dunn Shaft,	Old Forge twp., Lackawanna co.,	79,828 00	74,467 00	111	359	. .	1	3.048	12	42	. . .
Sibley Shaft,	do. do.	132,875.00	122,900.00	224⅜	276	1	2	5,178	12	34	. .
Greenwood Shaft and Slope,	Lackawanna twp., Lacka. co.,	103,386.05	101,900.05	150½	412	1	1	4 241	19	48	1
Elmwood Shaft,	Pittston township, Luzerne co.,	169,623.19	161,637.04	274⅜	362	1	1	5.510	10	34	. . .
Enterprise Shaft and Slope,	Plains township, Luzerne co.,	112, 417.12	106,125 17	252	311	1	5	3 369	14	50	. . .
East Boston Shaft,	Kingston township, Luzerne co.,	154, 124.06	152.091 14	234⅜	358	3	14	4 969	18	29	. . .
Fairmount Shaft,	Pittston township, Luzerne co.,	7 877 04	7.396.02	50	178	. . .	1	547	6	12	. . .
Fairmount Shaft,†	do. do.	17,700.00	16.500 00	. . . . .	. . . . .	. .	. .	1,240	. .	. .	. . .
Hillman Slope,	Plains township, Luzerne co.,	60,000.00	60.000.00	274	102	1	. .	2.240	8	15	. . .
Keystone Slope and Tunnel,	do. do.	89.786.06	89 599.11	258⅜	250	1	2	3.575	6	20	. . .
Columbia Shaft and Tunnel,	Marcy township, Luzerne co.,	58.539.14	56,942 05	165	257	1	. .	1 941	8	27	. . .
Katy Did Tunnel,	Moosic, Lackawanna county,	13,032.00	11.459.00	167⅛	57	. .	. .	464	1	10	. .
Total, miscellaneous coal companies,		2,257,623.05	2,142,615.03	4,912	6,250	27	72	82,912	271	731	2

RECAPITULATION.

Pennsylvania Coal Company,	1 214 986.00	1,214.986.00	3,110½	3,196	10	14	43,941	149	397	. . .
Delaware and Hudson Canal Company,	434 954.19	431 529.15	690	1,058	5	6	11.058	56	138	. .
Lehigh Valley Coal Company,	861,644.10	837 001.10	1,049¾	2,097	8	39	25 287	117	293	6
Delaware, Lackawanna and Western Railroad Company,	274,308.01	256 395.01	420	819	2	15	9 723	27	97	.
Miscellaneous coal companies,	2,257,623 05	2,142,615 03	4 912	6,250	27	72	82,912	271	731	2
Total, all companies,	5,043,516.15	4,882,527.09	10,182	13,420	52	146	172,921	620	1,661	8

Lehigh Valley Coal Company.--22,110 tons of the above was consumed to generate steam at the mines.
Delaware, Lackawanna and Western Railroad Company.--13,260 tons of the above was consumed to generate steam at the mines.
Miscellaneous coal companies.--60,227 tons included in the above was consumed to generate steam at the mines.
Recapitulation.--95,597 tons of marketable coal used to generate steam at the mines is included in this table. There were 177 persons employed in sinking shafts not included in the above table, adding which makes a total number of 13,597 persons employed in and about the mines at the close of 1887.

* Did not ship any coal in 1887.

† Coal shipped by J. Rice before selling out to H. W. Harris & Co.

TABLE No. 3.—Showing the number of each class of employés at each colliery in the Second Anthracite Mine District during the year 1887

NAMES OF COLLIERIES.	LOCATION.	NUMBER PERSONS EMPLOYED INSIDE.							NUMBER PERSONS EMPLOYED OUTSIDE.							Grand totals—Inside and outside.
		Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Deerboys and helpers.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	
Pennsylvania Coal Company.																
Barnum, 2 shafts,	Marcy township, Luzerne county,	2	127	118	27	51	21	346	1	5	11	69	37	5	128	474
Law's Shafts,	Pittston township, Luzerne county,	1	54	56	13	18	9	151	1	2	10	54	26	2	95	246
Shaft No. 13	Old Forge, Lackawanna county,	2	56	62	18	19	7	164	1	2	4	3	9	. .	19	183
Old Forge Shaft,	do do. do.	2	84	84	19	23	15	247	1	3	9	53	37	2	105	332
Shaft No. 9.	Hughestown borough, Luzerne co.,	1	52	52	10	19	5	139	. .	1	4	3	6	.	14	153
Shafts No. 10, 10 Jr. and Abbott Slope,	do. do. do.	2	81	78	19	35	8	223	2	3	7	39	64	3	118	341
Shaft No. 1,	do. do. do.	1	44	44	6	13	2	110	1	2	2	1	13	2	21	131
Shaft No. 8,	do. do. do.	. .	42	42	8	13	2	107	1	3	4	72	42	3	127	234
Slope No. 4,	Jenkins township, Luzerne county,	1	46	46	9	20	5	127	1	2	4	7	11	1	26	153
Shaft No. 7,	do. do. do.	1	48	48	20	19	6	142	1	1	4	2	11	1	20	162
Shaft No. 5,	do. do. do.	1	42	42	10	16	5	116	. .	2	3	2	6	1	14	130
Shaft No. 6,	do. do. do.	1	42	42	13	16	2	116	2	2	5	82	23	1	115	231
Shaft No. 11,	do. do. do.	.	20	20	4	13	1	58	. .	1	1	2	1		5	63
Shaft and Slope No. 14,	do. do. do.	2	89	84	27	30	6	238	1	3	8	58	53	2	125	363
Total Pennsylvania Coal Co.,		17	827	818	203	365	94	2,264	13	32	76	447	339	25	932	3,196
Hudson and Delaware Canal Co.																
Mill Creek Shaft and Slope,	Plains township, Luzerne county,	1	44	44	19	24	.	132	1	3	9	55	37	1	106	238
Pine Ridge Shaft,	Miners Mills borough, Luzerne co.,	1	85	85	39	60	16	286	1	6	15	120	33	2	182	468
Laurel Run Slope,	Parsons borough, Luzerne county,	1	64	64	23	46	11	209	1	5	6	89	41	1	143	352
Total Dela. Hudson Canal Co.,		3	193	193	81	130	27	627	3	14	30	264	116	4	431	1,058
Lehigh Valley Coal Company.																
Prospect, 2 shafts,	Plains township, Luzerne county,	2	135	140	71	83	16	447	1	34	8	87	56	2	188	635
Wyoming Shafts,	do. do. do.	1	70	65	21	34	20	211	1	14	6	31	55	. . .	107	318

Henry Shafts,	do. do. do.	1	76	70	28	87	45	307	1	16	8	30	41	5	101	408
Mineral Spring Shaft and Slope,	Parsons borough, Luzerne county,	1	51	34	10	23	9	128	2	4	11	49	22	1	89	217
Exeter Shaft,	Exeter borough, Luzerne county,	1	35	35	33	18	7	129	1	5	9	42	21	2	80	209
Heidelberg Shaft and Slope,	Pittston township, Luzerne county,	1	60	58	25	26	8	178	1	5	5	39	80	2	132	310
Total Lehigh Valley Coal Co.,		7	427	402	188	271	105	1,400	7	78	47	278	275	12	697	2,097
Del., Lacka. & West. R. R. Co.																
*Pettebone Shaft,	Kingston township, Luzerne county,	1	. .		18	. . .		19	1	4	12		54	.	71	90
Hallstead Shaft,	Marcy township, Luzerne county,	2	132	112	40	32	20	338	1	6	8	100	40	. .	155	493
Hunt Shaft,	Wyoming township, Luzerne co.,	1	62	50	12	23	3	151	1	4	6	39	31	4	85	236
Total Del., Lacka. & West.,		4	194	162	70	55	23	508	3	14	26	139	125	4	311	819
Miscellaneous Coal Companies.																
Butler Shaft and Slope,	Pittston township, Luzerne county,	1	30	30	6	8	2	77	1	6	5	22	12	2	48	125
Mosier Shaft and Slope,	Hughestown borough, Luzerne co.,	1	74	74	10	26	3	188	1	3	7	37	10	1	59	247
Twin Shaft,	Pittston borough, Luzerne county,	3	30	30	15	18	98	68	3	4	6	40	13	1	67	165
Forty Fort Shaft,	Kingston township, Luzerne county,	1	89	77	19	21	5	203	1	5	6	33	25	3	73	276
Harry E. Shaft and Slope,	do. do. do.	1	116	98	14	40	9	278	1	6	7	60	39	3	116	394
Boston Slope and Drift,	Jenkins township, Luzerne county,	1	50	4	20	15	6	96	1	2	3	35	25	1	67	163
Schooley Shaft,	Exeter borough, Luzerne county,	2	57	55	24	15	11	164	1	3	10	57	35	2	108	272
Bernice Drift,	Bernice, Sullivan county,	1	137		6	15	2	161	2	8	2	70	6		88	249
Bennett Shaft,	Plains township, Luzerne county,	1	51	51	21	19	6	149	1	4	4	58	18	3	88	237
Mill Hollow Shaft,	Luzerne borough, Luzerne county,	2	75	30	8	14	3	132	1	4	4	40	30	2	81	213
Black Diamond Shaft,	Kingston township, Luzerne county,	1	90	65	16	23	9	204	1	5	10	65	16	3	100	304
Clear Spring Shaft,	West Pittston borough, Luzerne co.,	1	85	85	29	45	28	273	1	4	8	50	28	3	94	367
Consolidated Shaft and Slope,	Pleasant Valley boro., Luzerne co.,	2	100	100	29	43	10	284	1	7	7	30	46	1	92	376
Dunn Shaft,	Old Forge twp., Lackawanna co.,	1	91	86	21	36	7	242	1	4	5	69	35	3	117	359
Sibley Shaft,	do. do. do.	2	75	50	17	35	6	185	1	4	6	57	21	2	91	276
Greenwood Shaft and Slope,	Lackawanna twp., Lackawanna co.,	1	100	75	37	45	26	284	1	5	10	60	50	2	128	412
Elmwood Shaft,	Pittston township, Luzerne county,	1	65	65	15	36	9	191	1	3	4	70	30	3	111	302
Enterprise Shaft and Slope,	Plains township, Luzerne county,	2	53	79	29	38	13	214	2	4	10	38	40	3	97	311
East Boston Shaft,	Kingston township, Luzerne county,	1	80	80	28	37	10	236	1	4	5	78	31	3	122	358
Fairmount Shaft,	Pittston township, Luzerne county,	2	54	46	10	14	3	129	1	3	3	28	14	. .	49	178
Hillman Slope,	Plains township, Luzerne county,	1	25	25	8	11	4	74	1	2	5	11	8	1	28	102
Keystone Slope and Drift,	do. do. do.	1	63	71	12	23	4	174	1	4	5	35	28	3	76	250
Columbia Shaft and Tunnel,	Marcy township, Luzerne county,	1	60	60	15	18	6	160	1	5	6	45	40	. .	97	257
Katy Did Tunnel,	Moosic Lackawanna county,	1	15	15	2	2	1	36	1	1	1	10	7	1	21	57
Total Miscellaneous Coal Cos.,		32	1 656	1,351	411	597	185	4,232	28	100	139	1,098	607	46	2,018	6,250

* Did not ship any coal in 1887.

TABLE 3.—Recapitulation.

NAMES OF COLLIERIES.	NUMBER OF PERSONS EMPLOYED INSIDE.							NUMBER OF PERSONS EMPLOYED OUTSIDE							Grand totals—inside and outside.
	Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All company men.	Superintendents, bookkeepers and clerks.	Total outside.	
Pennsylvania Coal Company,	17	827	818	208	305	94	2,284	13	32	76	447	339	25	932	3 196
Delaware and Hudson Canal Company,	3	193	193	81	130	27	627	3	14	30	264	116	4	431	1,058
Lehigh Valley Coal Company,	7	427	402	188	271	105	1,400	7	78	47	278	275	12	697	2,097
Delaware, Lackawanna and Western Railroad Company,	4	194	162	70	55	23	508	3	14	26	139	125	4	311	819
Miscellaneous Coal Companies,	32	1,050	1,351	411	397	185	4,232	28	100	139	1,098	607	46	2,018	6,250
Total all companies,	63	3,207	2,926	958	1,358	434	9,031	54	238	318	2,226	1,462	91	4,389	13,420

N. B.—In addition to the above there were 82 employed sinking at the Hoyt Shaft and 95 at the Seneca Shaft, adding which would make a total of 13,597 persons.

TABLE No. 4.—List of fatal accidents occurring in and about the Mines of the Second Anthracite Mine District, for the year ended December 31, 1887.

Date of accident.	No of accident.	Name of Person.	Occupation.	Age.	Widow.	No. of orphans.	Name of Colliery—Location, County.	Nature and Cause of Accident.
Jan. 12,	1	Michael Adams,	Laborer,	22	..	..	Clear Spring Colliery, West Pittston, Luz. co.,	Instantly killed while helping his miner to repair the road by a fall of rock from roof.
14,	2	Frank Braughan,	Driver,	16	..	..	Wyoming Colliery, Plains twp., Luz. co.,	While riding on front of loaded car fell off was injured so severely that he died the next day.
16,	3	Anthony Nealon,	Pump man,	22		.	Greenwood Colliery, Lacka. co.,	Instantly killed by falling down the shaft.
Feb. 2,	4	Wm. Krueger,	Miner,	7	1	1	Hallstead Colliery, Marcy twp., Luz. co.,	Instantly killed by a premature blast.
3,	5	Michael Jersic,	Laborer,	30	..	..	Wyoming Colliery, Plains twp., Luz. co.,	Was fatally injured by a fall of roof rock died the next day.
26,	6	James Stucker,	Miner,	28	1	1	Mineral Spring Colliery, Parson bor., Luz. co.,	Was so seriously burned about the face that he died on March 3.
Mar. 4,	7	James McGrath,	Door boy,	15	..	..	Hallstead Colliery, Marcy twp., Luz. co.,	Head caught between loaded cars, died four days after.
7,	8	Julus Keeler,	Laborer,	22	..	..	Black Diamond Colliery, Luz. bor., Luz. co.,	Seriously injured by a fall of top rock, died while on his way to the hospital.
8,	9	John Watson,	Driver,	17	..	..	Old Forge Penna. Coal Company, Lacka. co.,	Instantly killed, cars ran over him.
14,	10	Pierce Clark,	Laborer,	21	..	..	Keystone Colliery, Plains twp., Luz., co.,	Instantly killed by a large piece of top coal falling on him.
21,	11	Andrew Marks,	Miner,	35	1	1	Mineral Spring Colliery, Parsons bor., Luz. co.,	Seriously injured by a fall of top coal, died six hours after.
23,	12	Lewis Leppert,	Slate picker,	10	..	..	Elmwood Colliery, Pittston twp., Luz. co.,	Instantly killed by falling on large screen while the same was revolving.
30,	13	Joseph Smith,	Laborer,	23		..	Schooley Colliery, Exeter bor., Luz. co.,	Instantly killed by a fall of rider coal.
Apr. 2,	14	Michael Lasa,	Laborer,	44	1	..	East Boston Colliery, Luz. bor., Luz. co.,	Killed by a fall of slate.
16,	15	Andrew Hart,	Slatepicker,	13	..	..	Consolidated Colliery, Pleasant Valley, Luz. co.,	Instantly killed by being caught in cog wheels of elevator.
19,	16	Harry Brown,	Driver,	18	..	..	Hillman Colliery, Plains twp., Luz. co.,	Crushed to death by a car.
22,	17	John McGuire,	Miner,	43	1	5	Schooley Colliery, Exeter bor., Luz. co.,	Fatally injured by a fall of rock.
May 5,	8	James Munley,	Miner,	43	1	7	Enterprise Colliery, Plains twp., Luz. co.,	Killed by a fall of coal.
14,	19	James Walsh,	Miner,	56	1	8	Schooley Colliery, Luzerne,	Killed by a fall of rock.
June 11,	20	Felix Jack,	Laborer,	40	.	4	East Boston Colliery, Luz. co.,	Killed by a fall of slate.
14,	21	Peter Wimmers,	Laborer,	28	1	1	Mill Creek Colliery, Luz. co.,	Both killed by a fall of top-rock.
14,	22	Simon Charnoski,	Laborer,	25	.		do. do.	
17,	23	Reese Thomas,	Miner,	30	1	3	Old Forge Coal Company, Limited, Luz. co.,	Killed by a fall of rock.
18,	24	Patrick Barrett,	Chargeman,	28	1	3	Twin Shaft, Luz. co.,	Fatally burned by an explosion of fire-damp.
18,	25	Edward Mooney,	Sinker,	26	..	..	do. do.	

TABLE No. 4.—Continued.

Date of accident.	No. of accident.	NAME OF PERSON.	Occupation.	Age.	Widow.	No. of orphans.	Name of Colliery—Location, County.	Nature and Cause of Accident.
June21.	26	Michael Hogan, . . .	Miner, ...	55	1	6	Slope No. 4, Luzerne co., ...	Both killed by a fall of rock.
21.	27	Michael Gilroy, . . .	Laborer, ...	19	. .	. .	do. do.	
July 7,	28	Michael Davitt, . . .	Driver, ...	15			Twin Shaft, Luz. co..	Killed by a fall of rock.
8,	29	Webster Jenkins, . .	Track layer, . . .	42	1	6	Harry E Slope, Luz. co., ...	Fatally injured by a fall of rock.
26,	30	John Quinn, ...	Pin drawer, . . .	15	. .	. .	Barnum Shaft, Luz, co., ...	Killed by falling down a shaft.
Aug. 2,	31	John Mitchell, . . .	Road cleaner, . .	55	1	1	Henry Shaft, Luz. co., ...	Fatally injured by being crushed by a car.
12,	32	Francis Northof, . .	Slope footman, .	24	. .	.	Black Diamond, Luz. co..	Killed by being run over by cars.
19,	33	Martin Hogan, . . .	Slope footman, .	22	. .		Pine Ridge Shaft, Luz. co., ...	Fatally injured by being caught between cars.
Sep. 2,	34	Joseph Hornsby, . .	Shaft sinker, . . .	45		2	Schooley Shaft, Luz. co., ...	Killed by falling down shaft.
10.	35	Wm. Watts, ...	Chargeman, . .	34	1	4	Hoyte Shaft, Luz. co., ...	Killed by a premature blast.
16,	36	David Morgan, . .	Door boy, ...	16	. .		Oakwood Shaft, Luz. co., ...	Killed by being caugh between a timber and car.
19,	37	Patrick Mayock, . .	Miner, ...	45	1	5	Laurel Run Slope, Luz. co., ...	Killed by a fall of coal.
27,	38	Patrick McAniff, . .	Laborer, ...	25	.		Prospect Shaft, Luz. co., ...	Killed by a fall of rock.
Oct. 18,	39	Patrick Joyce, . . .	Miner, ...	55	. .		Shirley Shaft, Lacka. co., ...	Killed by a fall of coal.
24,	40	David Williams, . .	Driver, ...	16	.		No. 5 Shaft, Luz co., ...	Killed by being run over by a car.
25,	41	John Patten, ...	Miner, ...	48	1	6	East Boston, Luz. co,, ...	Fatally injured by a premature blast.
26,	42	Lewis Langer, . . .	Miner, ...	40	1	. .	Twin Shaft, Luz. co., ...	Killed by falling down a shaft.
Nov. 1,	43	Michael Boyle, . . .	Driver, ...	18	. .		Prospect, Plains twp., Luz. co., ...	Killed by mine car.
3,	44	John Hogan, . . .	Miner, ...	28	1	2	No. 4 Slope, Jenkins twp., Luz. co., ...	Killed by fall of roof.
7,	45	Michael Mahalko, .	Miner, ...	28	1	1	Forty Foft, Kingston twp., Luz. co,, ...	Fatally injured by fall of rock.
10,	46	Patrick McDonnell,	Driver, ...	16	. .	. .	No. 4 slope, Jenkins twp., Luz co., ...	Fatally injured; kicked by mule.
26,	47	Patrick Carey, . . .	Driver, ...	17		. .	No. 1 Shaft, Hughe-town bor., Luz. co., ...	Instantly killed; run over by cars.
30	48	Thomas Kearney, . .	Co. man, ...	55	1	1	Clear Spring, West Pittston bor., Luz. co., . . .	Instantly killed; run over by cars.
Dec. 10,	49	John Johns,	Driver, ...	20		. .	Mill Hollow Shaft, Luz. co., ...	Both killed by falling down a shaft.
10,	50	Thos. Mullgan, jr.,	Laborer, ...	19	.		do. do.	
16,	51	Thos. Bartlett, . .	Miner, ...	32	1	1	Barnum Shaft, Luz. co., ...	Killed by a fall of coal.
21,	52	George Spence, . .	Driver, ...	16	. .	. .	Pine Ridge Shaft, Luz.co., ...	Killed by being crushed by a car.

TABLE No. 5.—List of non-fatal accidents occurring in and about the mines of the Second Anthracite Mine District for the year ended December 31, 1887.

Date of accident.	No. of accident.	NAME OF PERSON.	Occupation.	Age.	Married,	No. of children.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 5	1	Joseph Gregory, . .	Driver, ...	19	.	.	Forty Fort Shaft, . . .	Kingston twp., Luzerne co.,	Leg fractured by falling under loaded car while in motion.
7	2	George Martin, . .	Laborer, ...	33	1	2	Prospect Shaft, ...	Plains twp., Luzerne co., .	Leg slightly bruised by empty cars.
10	3	Simon Gooalis, . . .	do.	25	.	.	Black Diamond Shaft,	Kingston twp., Luzerne co.,	Hand seriously bruised by car wheel going over it
13	4	John Storse, . .	do. . . .	26	1	4	Hallstead Shaft, . . .	Marcy twp., Luzerne co., . .	Slightly injured by a blast.
13	5	Michael Clifford, .	Driver, ...	21	.	.	Shaft No. 1, Pa. C. Co.,	Old Forge twp., Lacka. co.,	Kicked in the abdomen by a mule.
15	6	John Padden, . . .	Laborer, . . .	35	1	.	Schooley Shaft, . . .	Exeter bor., Luzerne co., .	Slightly injured by a blast.
17	7	Thomas Watkins, .	Slate picker, . .	14	.	.	Prospect Breaker, . .	Plains twp., Luzerne co., . .	Head slightly injured by falling off timber he was walking on at breaker.
22	8	George Sayon, . . .	Car loader, . . .	30	.	.	do. . .	do. do. . .	First and second fingers taken off by coupling cars at breakers.
Feb. 3	9	William Burke, . .	Driver, ...	17	.	.	Hallstead Shaft, . . .	Marcy twp., Luzerne co., . .	Leg broken.
4	10	Henry Peoples, . .	Laborer, ...	40	.	.	Prospect Shaft, ...	Plains twp., Luzerne co., . .	Leg fractured by a fall of rock.
8	11	John Lidak, . . .	do.	24	.	.	Halistead Shaft, . . .	Marcy twp., Luzerne co., . .	Leg injured by a premature blast.
8	12	Edward Davis, . . .	Door boy, ...	15	.	.	East Boston Shaft, . .	Kingston twp., Luzerne co.,	Small bone of his leg broken by being caught by car.
9	13	Thos. A. Thomas, .	Driver, ...	17	.	.	Twin Shaft, ...	Pittston bor., Luzerne co., .	Arm badly fractured by car going over it.
	14	Martin Welsh, . . .	Laborer, ...	24	.	.	Sibley Shaft, ...	Old Forge twp., Lacka. co.,	Severely injured on the back by a piece of coal from a blast.
9	15	John Hagerty, . . .	Footman, ...	16	.		Wyoming Shaft, . . .	Plains twp., Luzerne co., . .	Struck by a piece of a car wheel while running away on slope.
9	16	William Pepper, . .	Laborer, ...	40	1	.	East Boston Breaker,	Kingston twp., Luzerne co.,	Painfully injured by being squeezed between cars at breaker.
16	17	Elliott Laphey, . .	Plane footman, .	21	.		Black Diamond Shaft,	do. do.	Slightly injured by being struck by car coming down gravity plane.
17	18	Monroe Hanker, .	Driver, ...	17	.	.	Forty Fort Shaft, . . .	do. do.	Severely injured by being squeezed between cars and pillar.
18	19	William Roberts, .	do.	18	.	.	Keystone Slope, . . .	Plains twp., Luzerne co., . .	Collar bone broken by falling under car.
18	20	Stephen Suskey, .	Laborer, ...	27	.	.	Forty Fort Shaft, . . .	Kingston twp., Luzerne co.,	Severely injured by a fall of rock.
19	21	Robert Hislope, . .	Runner, ...	19	.	.	Enterprise Shaft, . . .	Plains twp., Luzerne co., . .	Severely injured by having his head squeezed between cars.
22	22	M. E. Collier, . . .	Miner, ...	46	1	3	Mosier Shaft, ...	Hughestown bor., Luz. co., .	Arm and body badly bruised by a runaway on plane.

TABLE No. 5—Continued.

Date of accident.	No. of accident.	NAME OF PERSON.	Occupation.	Age.	Married.	No. of children.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Feb. 22	23	Anthony Becker, .	Miner, ...	35	1	3	East Boston Shaft, . .	Kingston twp., Luzerne co.,	While barring down coal he fell, cutting his arm.
28	24	Stephen Morety, . .	Laborer, ...	28	1	1	Mill Creek Slope, . . .	Plains twp., Luzerne co., . .	Seriously injured by a fall of rock.
Mar. 2	25	William Devlin, . .	do.	22			Prospect Shaft, ...	do. do. . .	Struck on neck by lever while putting on locomotive.
5	26	Thomas White, . .	Driver, ...	15	. .	. .	Greenwood Shaft, . .	Lacka. twp., Lacka. co., . .	Knee slightly injured by being caught between the bumpers of cars.
7	27	D. Wigownsky, . .	Laborer, ...	31	1	. .	Black Diamond Shaft,	Kingston twp., Luzerne co.,	Slightly injured on foot by piece of slate falling on it.
8	28	N. Pennergras, . .	Miner, ...	33	.	. .	Bernice Drift	Bernice, Sullivan co., ...	Back and leg severely injured by fall top coal.
10	29	Michael McGlynn, .	Laborer, ...	21	. .	. .	East Boston Shaft, . .	Kingston twp., Luzerne co.,	Foot injured by rock falling on it.
15	30	Michael Stinson, . .	Miner, ...	28	. .	. .	Henry Shaft, ...	Plains twp., Luzerne co., . .	Knee and ankle slightly injured by coal falling on them.
21	31	Henry Courtright,	Driver, ...	22	. .	. .	do.	do. do. . .	Skull fractured by a kick of a mule.
23	32	Matthew Breen, . .	do.	17	. .	. .	Schooley Shaft, ...	Exeter bor., Luzerne co., . .	Squeezed between mine cars.
25	33	Thomas Oriel, . . .	do.	17	. .	. .	Prospect Shaft, ...	Plains twp., Luzerne co., . .	Toes crushed; foot caught in rails of track and car wheel came on them.
28	34	Edward Harris, . .	Miner, ...	24	. .	. .	Wyoming Shaft, . . .	do. do. . .	Slightly injured by fall of roof rock.
31	35	Thomas Stacy, . . .	do.	23	. .	. .	do. . . .	do. do. . .	Seriously injured by fall of rock.
31	36	James McGaff, . . .	Plane boy, ...	15	. .	. .	Prospect Breaker, . .	do. do. . .	Hip slightly squeezed by the culm ear outside.
Apr. 1	37	John Bosley, ...	Laborer, ...	21	. .	. .	Shaft No. 13 Breaker,	Pittston twp., Luzerne co., .	Leg fractured by being caught between cars at breaker.
2	38	Noah Loomis, . . .	Miner, ...	35	1	4	Hunt Shaft, ...	Wyoming, Luzerne co., . . .	Severely injured on back by coal falling on him.
4	39	Richard O. Bryan, .	Driver.	16	. .	. .	Consolidated Shaft, .	Pleasant Valley bor., Luz. co.,	Slightly squeezed between car and prop.
5	40	Wm. B. McDowell,	Miner, ...	25	1	1	Hunt Shaft, ...	Wyoming, Luzerne co., . . .	Injured slightly by a fall of coal.
6	41	Lewis Dempsy, .	do.	35	. .	.	Mill Creek Slope, . .	Plains twp., Luzerne co., . .	Seriously injured by a premature blast.
9	42	Andrew Wekoskl, .	Laborer, ...	23		. .	Mineral Spring Slope,	Parsons bor., Luzerne co., .	Leg fractured by a fall of rider coal.
9	43	David Barnes, .	Driver, ...	15	. .		Black Diamond Shaft,	Kingston twp., Luzerne co.,	Slightly injured by falling under cars.
21	44	Jenkins J. Evans, .	Miner, ...	65	1	. .	East Boston Shaft, . .	do. do.	Arm injured by rock falling on it.
23	45	Evan John, . . .	Water baller, . .	64	1	4	Hallstead Shaft, . . .	Marey twp., Luzerne co., . .	Slightly injured by mine car while blocking the wheels.
May 3	46	Joseph Laggin, . .	Miner, ...	30	1	1	Wyoming Shaft, . .	Plains twp., Luzerne co., . .	Slightly injured by fall of rock.
4	47	William Jones, . .	Driver, ...	15	. .	. .	Black Diamond Shaft,	Kingston twp., Luzerne co.,	Hand bruised between car and culm-pipe.
5	48	Malicha Lannahan,	Miner, ...	30	1	3	Enterprise Shaft, . . .	Plains twp., Luzerne co., . .	Seriously injured by a fall of top coal.

	7	49	John Brown,	Laborer,	23			Mineral Spring,	Parsons bor., Luzerne co.,	Head slightly injured by a fall of top rock.
	11	50	John Guthrer,	do.	34	1	2	Forty Fort,	Kingston twp., Luzerne co.,	Leg fractured by fall of rock.
	11	51	William Fifer,	Car loader,	41	1	5	East Boston,	do. do.	Foot bruised between car bumpers at breaker.
	16	52	Michael Brennan,	Car runner,	17			Enterprise,	Plains twp., Luzerne co.,	Thumb broken by spragging a car.
	17	53	Peter McHale,	Miner,		1		Mosier,	Hughestown bor., Luz. co.,	Slightly burned about the face and hands by an explosion of gas
	20	54	James Doran,	do.	66	1	4	Hunt,	Wyoming, Luzerne co.,	Arm and four ribs fractured by a premature blast.
	20	55	John Brotherto,	do.	38	1	4	Oakwood,	Plains twp., Luzerne co.,	Head cut by a piece of top coal falling on him.
	31	56	George Shedlock,	do.	26	1	2	Wyomin g,	do. do.	Seriously burned by an explosion of gas.
June	3	57	Anthony Morris,	Laborer,	25			Prospect,	do. do.	Fingers crushed by unloading a car of props outside
	4	58	Cornelius Ryan,	Driver,	18			do.	do. do.	Painfully bruised about the hips by being squeezed between car and prop.
	7	59	Timothy Davis,	Miner,	24			do.	do. do.	These two were burned at the same time on hands and face by an explosion of gas.
	7	60	Thos. Williamson,	Laborer,	22			do.	do. do.	
	14	61	John Parduski,	Miner,	42	1	4	Mill Creek,	do. do.	Seriously injured by a fall of rock.
	14	62	Michael Ostroski,	do.	38	1	4	do.	do. do.	Leg seriously injured so as to make amputation necessary.
	18	63	Bernard Dimpsy,	Linker,	26			Twin,	Pittston bor., Luzerne co.,	These three men were burned by an explosion of gas.
	18	64	Francis Donohue,	Headman,	24			do.	do. do.	
	18	65	Michael Finan,	Linker,	26	1		do.	do. do.	
	23	66	Edward Parry,	Door boy,	15			East Bo ton,	Kingston twp., Luzerne co.,	Leg fractured by being caught between car and prop.
	24	67	Patrick Haley,	Laborer,	50			Boston,	Jenkins twp., Luzerne co.,	Small bone of leg fractured by fall of coal.
	24	68	John Vaughn,	Miner,	60	1	5	Shaft No. 7,	do. do.	Slightly injured by fall of top coal.
July	5	69	James Hamilton,	Car loader,	38		6	Prospect,	Plains twp., Luzerne co.,	Hips squeezed between cars outside at breaker.
	9	70	Moses McGee,	Miner,	32			Black Diamond,	King-ton twp., Luzerne co.,	Injured slightly by flying coal from a premature blast.
	16	71	Peter Sweeney,	do.	30			Henry,	Plains twp,, Luzerne co.,	Injured slightly by a piece of rock falling on him while working out a shot.
	18	72	John Wellgus,	Laborer,	25			Harry E.,	Kingston twp., Luzerne co.,	Ankle dislocated by a fall of rock while repairing road.
	18	73	David John,	Headman,	25			Prospect,	Plains twp., Luzerne co.,	Throat injured by running against a pointed board which was raised from the ground.
	21	74	Isaiah Williams,	Miner,	50		1	do.	do. do.	Slightly burned on face and hands by gas after firing a blast.
	29	75	John Jones,	Timberman,	30			do.	do. do.	Shoulder and ankle slightly bruised by a fall of rock.
	30	76	William Dawson,	Driver,	18			Hunt,	Wyoming, Luzerne co.,	Seriously injured by jumping into an empty coal chute to slide down.
Aug.	3	77	Joseph Ralston,	Runner,	25	1	2	Enterprise,	Plains twp., Luzerne co.,	Fingers badly bruised by spragging a car.
	3	78	Peter Hogan,	Miner,	26			Keystone,	do. do.	Legs and feet painfully bruised by a fall of coal.
	4	79	Thomas Crouse,	Laborer,	33	1	1	East Boston,	Kingston twp., Luzerne co.,	Foot injured by fall of slate.
	4	80	James Williams,	Runner,	23			do.	do. do.	Hand bruised while putting car on track.
	8	81	Jenkin David,	Slope footman,	23			Prospect,	Plains twp., Luzerne co.,	Hand crushed by wheel of mine car going over it.
	10	82	James Tierney,	do.	55	1	4	No. 14 Slope,	Jenkins twp., Luzerne co.,	Leg fractured below knee by being caught between empty car and pillar.
	13	83	Edward Lafrance,	Laborer,	21			Hunt,	Wyoming, Luzerne co.,	Foot and ankle badly bruised by rock falling on it.
	13	84	Matius Portal,	do.	40	1	1	Schooley,	Exeter bor., Luzerne co ,	Leg fractured by mule falling against him.

TABLE No. 5—Continued.

Date of accident.	No. of accident.	NAME OF PERSON.	Occupation.	Age.	Married.	No. of children.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Aug. 17	85	Owen O. Boyle, . .	Miner, ...	40	1	6	Hunt, ...	Wyoming, Luzerne co., . .	Foot injured by rock falling on it.
24	86	John Papsin, ...	do.	24	. .	. .	Prospect, ...	Plains twp., Luzerne co., . .	Thigh fractured by a piece of top coal he was barring down
25	87	Frank Hagerty, . .	Driver, ...	17	. .	. .	do.	do. do. . .	Face and hands slightly burned by gas.
27	88	Edward Ralston, .	do.	16	.	. .	Hallstead, ...	Marcy twp., Luzerne co., . .	Leg cut by coal falling off car while he was coupling the cars.
30	89	Michael Dolan, .	Miner, ...	40	. .	. .	Mill Hollow, ...	Luzerne bor., Luzerne co., .	Severely injured by a prop falling on him.
Sept. 5	90	Wm. Goldsworth, .	do.	30	. .	. .	Hoyte Shaft.	Jenkins twp., Luzerne co., .	Burned by an explosion of powder.
5	91	James Welsh, . .	Driver, ...	15	.	. .	Barnum Shaft, ...	Marcy twp., Luzerne co., . .	Arm broken by falling off a mule outside.
7	92	John McNalley, . .	Miner, ...	50	1	. .	Old Forge.	Old Forge twp., Lacka. co., .	Seriously injured by a premature blast.
9	93	Joseph Clancy, . .	Laborer, ...	25	. .	. .	Shaft No. 5, ...	Jenkins twp., Luzerne co., .	Leg fractured above the knee by a fall of rock.
10	94	Richard Bowden, .	do.	24	. .	. .	Hoyte Shaft, ...	do. do. .	Skull fractured by a premature blast.
14	95	Henry Langdon, .	do.	. .	. .	. .	Henry, ...	Plains twp., Luzerne co., . .	While pushing a car a piece of rock fell, fracturing his arm.
16	96	James Graham, . .	do.	35	. .	. .	East Boston, ...	Kingston twp., Luzerne co.,	Top of finger taken off while unloading a car of props.
23	97	John Kane.	Driver, ...	14	. .	. .	Mosier, ...	Hughestown bor., Luz. co.,	Fell under loaded car, bruising him severely.
27	98	Edward Caffrey, .	Miner, ...	55	1	3	Bennett, ...	Plains twp., Luzerne co., . .	Foot badly cut and bruised by a fall of coal.
Oct. 5	99	Thomas Jordan, .	do. . . .	35	1	2	Elmwood, ...	Pittston twp., Luzerne co.,	Skull fractured by a fall of coal.
11	100	Michael Barrett, .	Company laborer,	23		.	Black Diamond, . . .	Kingston twp., Luzerne co.,	Leg fractured by being struck by rope of plane.
11	101	James McGlorey, .	Miner, ...	34	1	7	East Boston, ...	do. do.	Seriously injured on head and shoulder by premature blast.
18	102	Joseph Barre, . . .	Laborer, ...	40	.	. .	Twin, ...	Pittston bor., Luzerne co., .	Arm and ribs broken by a fall of rock.
19	103	Frank Dean, ...	Miner, ...	45	1	. .	Henry, ...	Plains twp., Luzerne co., . .	Head and shoulders cut by coal flying from premature blast.
20	104	Thomas Galligher,	Driver, ...	18	. .	. .	Prospect, ...	do. do. . .	Slightly bruised by being caught between car and pillar.
20	105	Joseph Kosesky, . .	Tower footman,	38	1	4	Shaft No. 14, ...	Jenkins twp., Luzerne co., .	Leg fractured in two places by being caught in cage pit breaker.
21	106	Thomas Barrett, .	Miner, ...	30	1	2	do.	do. do. .	Seriously injured by a premature blast.
24	107	John Campbell, . .	do.	22	.	. .	Hallstead, ...	Marcy twp., Luzerne co., . .	Slightly burned on face and hands by gas.
25	108	Patrick Lynch, . .	Oiler, ...	15	.	. .	Harry E., ...	Kingston twp., Luzerne co.,	Collar bone fractured by being caught between car and pillar.
27	109	Fred Taylor, ...	Laborer, ...	19	. .	. .	Shaft No. 14, ...	Jenkins twp., Luzerne co., .	Bone of foot broken by fall of rider coal.
27	110	Alfred King, ...	Driver, ...	19	. .	. .	East Boston, ...	Kingston twp., Luzerne co.,	Arm fractured and wrist dislocated coupling cars.

Oct.	28	111	George Rickard, . .	Miner, ...	26	1	. .	Prospect, ...	Plains twp., Luzerne co.,	Toes cut off by a piece of rock falling on them.
	31	112	John Knapp, ...	Engineer, ...	16	.	. .	do.	do. do. . .	Hand cut by connection rod of compressor engine.
Nov.	2	113	Michael Flannery, .	Miner, ...	40	1	5	No. 4 Slope, ...	Jenkins twp., Luzerne co., .	Leg fractured by fall of rock.
	2	114	James Walsh, . . .	do.	48	1	.	Hallstead, ...	Marcy twp., Luzerne co., . .	Seriously injured by premature discharge of a blast.
	8	115	Stephen Schuh, . .	do.	28	.	.	do.	do. do. . .	Leg fractured by being caught by a car.
	10	116	James Maton, . . .	Footman, . . .	55		. .	Butler, ...	Pittston twp., Luzerne co.,	Arm fractured by being caught between cars.
	11	117	Phil. Palamountain,	Driver, ...	18		. .	East Boston, ...	Kings ou twp., Luzerne co.,	Seriously injured by kick of a mule.
	15	118	Barney O. Boyle, .	aborer, ...	18	. .		Hunt, ...	Wyoming, Luzerne co., . .	Ribs fractured by fall of coal.
	16	119	James Burt, . . .	Miner, ...	50	.		Bennett, ...	Plains twp., Luzerne co., . .	Ribs fractured by fall of top rock.
	17	120	George Stroko, . .	Laborer, ...	35	1	3	Prospect Butler, . . .	do. do. . .	Three fingers crushed while coupling cars.
	25	121	Gilbert White, .	Miner, ...	40	1	3	Butler, ...	Pittston twp., Luzerne co., .	Leg fractured below knee by fall of coal.
	26	122	Michael Cawley, . .	do.	37	1	5	Pine Ridge, ...	Miners' Mills bor., Luz. co.,	Ribs fractured and spine injured by fall top coal.
	26	123	Patrick Lyden, . .	do.	40	1	6	Fairmount Shaft, . . .	Pittston twp., Luzerne co., .	Seriously burned by gas while going into his chamber.
Dec.	5	124	Hugh Quinn, . . .	Driver, ...	17			Mill Hollow Shaft, . .	Luzerne bor., Luzerne co., .	Leg fractured by falling under cars.
	5	125	Frank Jackson, . .	Miner, ...	40	1	10	Laws Shaft, ...	Pittston twp., Luzerne co., .	Thigh fractured by fall of rock at face of his chamber.
	8	126	John Shallay, . . .	Driver, ...	23	1	2	East Boston Breaker,	Kingston twp., Luzerne co.,	Bruised slightly by falling under culm car.
	8	127	Joseph McCabe, . .	Laborer, ...	25	.	.	Mill Hollow Shaft, . .	Luzerne bor., Luzerne co., .	Toes crushed by rock falling on them.
	8	128	Martin O. Bromky,	Door boy, . . .	15	. .	.	Pine Ridge Shaft, . . .	Miners' Mills bor., Luz. co.,	Badly bruised by car knocking the door on him.
	8	129	Michael Melvin, . .	Miner	38			Twin Shaft, . . .	Pittston bor., Luzerne co., .	Slightly injured by fall of top rock.
	9	130	Henry Anderson, .	do.	45	1	3	Black Diamond Shaft,	Kingston twp., Luzerne co.,	Seriously injured by a premature blast.
	10	131	William L. Boyd, .	do.	32	1	3	Mill Hollow Shaft, . .	Luzerne bor., Luzerne co., .	Leg fractured and ankle dislocated.
	10	132	Thomas C. Blight, .	Laborer, ...	23	1	1	do. . .	do. do. .	Leg fractured and cut on neck.
	10	133	Chas. Cunnlugham,	do.	22		. .	do. . .	do. do. .	Head slightly cut.
	10	134	John Kesler, . . .	Miner, ...	35	1	. .	do. . .	do. do. .	Foot bruised by fall of rock.
	12	135	Joseph Laba, . . .	do.	35	1	.	Schooley Shaft, ...	Exeter twp., Luzerne co.,	Burned by an explosion of powder.
	12	136	William Jurus,	Laborer, ...	37	1		do. . . .	do. do.	
	12	137	Anthony Geleskie,	Miner, ...	45	1	2	do. . . .	do. do.	
	14	138	E. N. Thompson, .	Footman, ...	30	. .	.	Black Diamond Shaft,	Kingston twp., Luzerne co.,	Foot slightly injured by coal falling down shaft.
	16	139	Roland Jones, . .	Laborer, ...	27	. .	.	Wyoming Shaft, . .	Plains twp., Luzerne co., . .	Seriously injured by a fall of top rock.
	16	140	Patrick Brannan, .	Driver, ...	16	. .	.	Enterprise Shaft, . . .	do. do. . .	Foot seriously bruised by being caught under wheel of car.
	16	141	Daniel Morgan, . .	Miner, ...	45	1	6	Wyoming Shaft, . . .	do. do. .	Burned by explosion of gas.
	16	142	Thomas Shlarn, . .	Laborer, ...	30	1	3	do. . .	do. do. .	
	17	143	William Mays, . . .	Miner, ...	40	1	4	Dunn Shaft, ...	Old Forge twp., Lacka. co.,	Slightly injured by flying coal from a blast.
	17	144	Henry Brezee. . .	Driver, ...	16		. .	Sibley Breaker, ...	do. do.	Slightly injured by falling under moving cars.
	23	145	Thomas Henahan, .	Miner, . . .	50	1	. .	Henry Shaft.	Plains twp , Luzerne co., . .	Ankle broken by fall of rider coal.
	23	146	Edward Miller, . .	Company man, .	32	.	. .	Consolidated Breaker,	Pleasant Valley bor., Luz. co.,	Knee bone broken by being caught between cars at breaker.

TABLE No. 6.—Showing the mode and state of ventilation in all the Collieries operated in the Second Anthracite District of Pennsylvania, for the year ending December 31, 1887.

Number.	NAME OF COLLERIES.	Fan or furnace.	Total air at intake.	Amount of air at or near the face.	Total number of splits of air.	Number of men in all the splits.	Total amount of air at outlet.
1	Prospect Shaft,	Fan,	129,116	71,246	6	170	130 426
2	Oakwood Shaft,	do.	122,481	57 343	4	115	125.146
3	Wyoming Shaft,	2 fans,	144 700	125 900	6	193	157, 650
4	Henry Shaft,	do.	182 240	105,370	6	237	20 .080
5	Mildvale Slope,	Fans,	74 198	8, 50	6	17	75.240
6	Mineral Spring Slope,	do.	55,000	32,000	2	116	58 000
7	Coal Brook Slope,	Natural,	Have not got the second opening through yet.				
8	Mathby Shaft,	Fan,	Has not worked any this year.				
9	Exeter Shaft,	2 fans,	50.800	27 120	2	90	43 700
10	Heidelburg Shaft,	do.	95 000	7 .620	4	90	108 000
11	Ontario Slope,	do.	15 000	12 420	1	32	17,000
12	Barnum Shaft,	do.	92.390	86 640	6	186	91.400
13	Barnum No. 2, Shaft,	do.	59.580	30,320	4	115	60 700
14	Shaft No. 9,	do.	52 060	34. 00	3	132	55 600
15	Abbotts Slope,	do.	23,000	22 300	2	48	23,000
16	Shafts No. 0 and 10 jr,	do.	90 000	83 750	6	130	92,160
17	Shaft No. 1,	do.	25 000	22,800	2	110	25.600
18	Shaft No. 8,	do.	32.000	28,300	2	107	33 800
19	Slope No. 4	do.	25 000	20.310	2	98	26,000
20	Shaft No. 7,	do.	42 950	37,610	3	133	43 200
21	Shaft No. 5,	do.	35 600	34 820	2	82	35 365
22	Shaft No. 6,	do.	38.600	19 500	3	85	39 200
23	Shaft No. 1,	do.	14,720	12,700	1	42	18 600
24	Shaft and Slope No. 14,	do.	81 120	70 990	5	160	83 720
25	Old Forge Shaft,	do.	58 244	46 610	5	214	95 080
26	Starks Shaft,	do.	7.900	7,086	1	5	8 315
27	Shaft No. 13,	do.	60.660	50 805	3	138	56 020
28	Laws Shaft,	do.	52,075	43 120	1	149	62 020
29	Laurel Run Slope,	do.	145.260	94 782	6	193	139,384
30	Pine Ridge Shaft,	do.	96,880	75 990	3	210	94 380
31	Mill Creek Slope and Shaft,	3 fans,	22,275	21 010	2	19	22,360
32	Pettebone Shaft,	Have not finished sinking the shaft yet.					
33	Hunt Shaf,	Fan,	76,800	67.000	4	184	86.000
34	Hallstead Shaft,	2 fans,	105,150	92 495	6	258	105 285
35	Fory Fort Shaft,	do.	50 180	32,600	3	120	9 400
36	Harry E Shaft,	Fan,	59,360	30, 40	5	141	40,000
37	Schooley Shaft,	do.	75,866	66,650	2	88	80 700
38	Boston Slope and Drift,	Furnace,	24,200	21 000	2	55	25,200
39	Twin Shaft,	Fan,	51.600	31 800	2	87	61,900
40	Mosher Shaft and Slope,	do.	48,150	46 800	3	110	49.500
41	Bennett Shaft,	do.	65,410	44 820	3	126	57,300
42	Mill Hollow Shaft,	do.	54 000	34 000	3	72	58 500
43	Bernice Drift,	Furnace,	33,000	30,120	2	130	33 210
44	Black Diamond Shaft,	Fan,	76 800	75 100	4	154	95,300
45	Butler Shaft,	Natural,	24.500	19 410	2	50	24 000
46	Clear Spring Shaft,	Fan,	60,300	41,400	5	202	60,500
47	Consolidated Shaft,	do.	76,600	61,150	2	98	81.170
48	Consolidated Slope,	Furnace,	33 000	25.600	2	105	34 180
49	Dunn Shaft,	Fan,	76 560	57,730	3	148	76,340
50	Elmwood Shaft,	do.	56 360	45,550	2	138	60 300
51	Enterprise Shaft,	do.	66,200	19,800	3	91	66 700
52	Enterprise Slope,	do.	35,000	32,000	1	14	44 000
53	East Boston Shaft,	do.	123,200	88,300	6	179	147, 00
54	Fairmount Shaft,	do	31 310	2 ,210	2	97	35.735
55	Greenwood Shaft,	do.	39.600	26,050	2	120	54 000
56	Hillman Slope,	do.	12,100	10,160	1	50	12,380
57	Keystone Slope,	do.	60.615	22,722	3	77	60,460
58	Sibley Shaft,	do.	40,600	37.000	3	180	42 000
59	Columbia Shaft and Tunnel,	Furnace and fan,	38, 00	31.840	3	93	3 .910
60	Katy Did Tunnel,	Furnace,	10,200	9,700	1	18	10,300

THIRD ANTHRACITE DISTRICT.

Office of Inspector of Mines,
Third District Anthracite Coal Field,
Wilkes-Barre, Pa., *March 16, 1888.*

Hon. Thomas J. Stewart,
Secretary of Internal Affairs:

Sir: I have the honor of presenting herewith my annual report as inspector of coal mines in the Third district of the anthracite coal field, for the year 1887. It contains the usual tables, which show that 7,540,754 tons of coal were mined during the year 1887, an increase of 605,439 tons over the production of 1886.

The number of fatal accidents were 65, leaving 33 widows and 120 orphans, an increase of 7 fatal accidents, 1 widow and 22 orphans.

The number of serious non-fatal accidents were 295, an increase of 48 over the non-fatal accidents of 1886.

While we have cause to regret that so many accidents occur, the result is very satisfactory as compared with past years. Having received several letters from the Chief of the Bureau of Statistics, urging me to make my report as brief as possible, I have endeavored to do so.

Yours, very respectfully,
G. M. Williams,
Inspector of Mines.

Total Tons of Coal Mined During the Year 1887.

	Tons.
Lehigh and Wilkes-Barre Coal Company,	2,178,150.02
Delaware and Hudson Canal Company,	1,106,146.05
Susquehanna Coal Company,	1,561,530.04
Kingston Coal Company,	869,598.07
Miscellaneous coal companies,	1,825,329.09
Total of all coal companies,	7,540,754.07

Number of Fatal Accidents and Tons of Coal Produced per Life Lost.

NAMES OF THE OPERATORS.	Number of lives lost.	Tons of coal mined per life lost.
Lehigh and Wilkes-Barre Coal Company,	20	108,907
Delaware and Hudson Canal Company,	6	184,357
Susquehanna Coal Company,	20	78,076
Kingston Coal Company,	5	173,919
Miscellaneous coal companies,	14	130,380
Totals,	65	116,011

Number of widows, 33; orphans, 120.

Number of Serious and Fatal Injuries and Tons of Coal Produced per Each Person Injured or Killed.

NAMES OF THE OPERATORS.	Number killed or injured.	Tons of coal produced per person killed or injured.
Lehigh and Wilkes-Barre Coal Company,	79	27,571
Delaware and Hudson Canal Company,	31	35,682
Susquehanna Coal Company,	91	17,159
Kingston Coal Company,	29	29,986
Miscellaneous coal companies,	65	28,082
Totals,	295	25,561

Classification of Fatal and Non-Fatal Accidents.

CAUSES OF ACCIDENTS.	Killed or fatally injured.	Seriously injured.
By explosion of carbureted hydrogen,	6	41
By falls of roof and coal,	27	89
Crushed and run over by cars,	11	37
By explosions of powder and blasts,	3	23
Miscellaneous causes, inside,	7	22
Miscellaneous causes, outside,	11	20
Totals,	65	232

In addition to the above number of non-fatal accidents, seventy-one were reported as very slightly injured. These men were disabled only for a few days, and they were not considered to be injured seriously enough to include in this report.

Condition of the Mines.

The mines of this district are generally in good condition. As shown in table A, the total quantity of air entering the mines per minute in the month of December, was 5,174,472 cubic feet, an average of 391 cubic feet for each person employed under ground. It was divided into 244 separate currents, or splits, and exhausted by 64 fans. This is sufficient to show that the average ventilation is excellent. There are only three collieries in the district where I have cause to complain of the quantity of air circulating, and in these preparations are being made to increase the quantity as soon as practicable. Explosive gases are evolved in all except nine of the collieries of this district. And in some of them, the quantity is enormous. But the quantity of air in those mines is sufficient to dilute the gas to such a degree that not a trace is seen in the flame of the safety-lamp. The safety-lamp, however, does not show less than about 3 per cent. of gas, and when air is mixed with it, from 5 to 6 per cent., the whole becomes explosive. Therefore, the margin of safety between the point where the lamp shows the presence of gas, and where it becomes explosive is very small, and in very gassy mines, where all the men work with naked lights, and where so much powder is used, as in these mines, the gases should be diluted to less than 1 per cent. We cannot state whether it is so diluted in these mines, as we have no means of ascertaining the percentage of gas found in the air when not seen on the flame of the safety-lamp. We have seen, however, that in a few of the mines the air becomes explosive in an exceedingly short time, when the fans are stopped. In a few cases, the air of the whole mine is rendered explosive, in about one hour after the fans are stopped. This naturally causes anxiety as to the result, in case the fan should unexpectedly fail, while the employés are at work. This also, I think, is the weakest guarded point at present in our system of mining, and the only one which points to a possible disaster. I know of no provision better than to call the workmen out as soon as possible when a fan fails to run, but this cannot be done under the present system quickly enough to insure safety in only a few of the gaseous mines.

The provisions of the law in these and other matters are very generally complied with, and I find the operators and officials willing to provide everything required to enhance the safety of the mines.

Speed Recorders on Fans.

Scharar's Automatic Speed Recorders were put on each of the following fans in this district: The Forge Seam fan, No. 2 Slope, No. 4 Slope, The Double fan, Ross Vein fan, No. 2 Shaft, Old Ross Vein

fan, No. 3 Slope fan, McFarland Shaft, No. 1 Shaft, Newport Slope, Newport Shaft, Newport tunnel and the Black Hill fan, all of the Susquehanna Coal Company, Conyngham Shaft and Baltimore Slope of the Delaware and Hudson Canal Company, Hollenback, Stanton and Empire of the Lehigh and Wilkes-Barre Coal Company, Hillman Vein Shaft, Hillman Vein Coal Company and No. 4 Shaft fan of the Kingston Coal Company.

These recorders show the speed of the fan at any time during the day or night, and in a number of instances the effect is very good. The fans are said to have been watched more closely, and their speed maintained more regularly, since the recorders were put on.

TABLE A.—Showing the condition of the ventilation in the Third Anthracite District during December, 1887.

NAMES OF MINES.	Names of Operators or Coal Companies.	Number of fans.	Persons employed in the mines.	Number of separate splits of air.	Cubic feet of air at the inlet.	Cubic feet of air at the face of workings.	Cubic feet of air at the outlet
1. Diamond,	Lehigh and Wilkes-Barre Coal Company,	2	106	7	160,290	157,290	164,900
2. Hollenback,	do. do. do.	2	332	9	329,570	262,090	335,300
3. Empire,	do. do. do.	2	339	5	208,060	136,900	230,000
4. Jersey,	do. do. do.	2	243	6	93,490	58,620	98,225
5. Stanton,	do. do. do.	2	417	7	185,990	168,795	228,862
6. South Wilkes-Barre,	do. do. do.	1	12	1	38,250	29,240	45,600
7. No. 9 Shaft,	do. do. do.	2	296	12	189,880	115,290	91,110
8. Lance No. 11,	do. do. do.	1	316	7	157,920	144,500	179,700
9. Nottingham No. 15,	do. do. do.	1	661	8	153,790	137,230	172,640
10. Reynolds No. 16,	do. do. do.	1	355	5	81,520	44,120	92,500
11. Wanamie No. 18,	do. do. do.	2	227	3	64,300	46,600	71,500
12. Baltimore Slope,	Delaware and Hudson Canal Company,	1	70	3	89,000	89,000	78,400
13. Baltimore Tunnel,	do. do. do.	1	208	3	219,200	103,880	124,000
14. Conyngham,	do. do. do.	1	148	6	171,180	136,800	180,780
15. Boston,	do. do. do.	1	168	4	46,820	41,520	49,670
16. No. 2 Plymouth,	do. do. do.	1	189	4	89,710	74,900	99,040
17. No. 3 Plymouth,	do. do. do.	1	275	6	81,840	73,305	81,840
18. No. 4 Plymouth,	do. do. do.	1	146	2	36,950	28,610	37,250
19. No. 5 Plymouth,	do. do. do.	2	308	7	139,600	136,400	141,000
20. No. 1 Slope,	Susquehanna Coal Company,	1	70	4	19,860	31,360	42,200
21. No. 2 Slope,	do. do.	2	188	5	125,500	53,000	139,500
22. No. 3 Slope,	do. do.	2	93	5	86,439	65,264	88,530
23. No. 4 Slope,	do. do.	2	229	6	203,890	150,190	214,900
24 Newport Slope,	do. do.	1					
25. No. 4 Tunnel,	do. do.	1	80	2	30,600	12,976	12,976
26. Newport Tunnel,	do. do.	1	188	4	114,175	92,005	112,360
27. No. 1 Shaft,	do. do.	1	201	5	121,860	114,902	200,000
28. Deep Shaft,	do. do.	1	210	5	121,610	104,360	74,825
29. No. 2 Shaft,	do. do.	1	402	9	176,732	141,690	185,211
30. Newport Shaft,	do. do.	1	130	4	92,000	69,000	93,000
31. No. 1 Shaft,	Kingston Coal Company,	2	237	5	89,330	60,570	108,300
32. No. 2 Shaft,	do. do.	1	167	5	56,644	51,220	86,364
33. No. 3 Shaft,	do. do.	1	302	6	68,000	53,800	80,250
34. No. 4 Shaft,	do. do.	1	95	5	72,200	57,000	81,800
35. Gaylord Shaft,	do. do.	1	173	3	144,000	38,000	86,000
36. Gaylord Slope,	do. do.	1	103	2	50,000	42,000	68,500

TABLE A.—Continued

NAMES OF MINES.	Names of Operators or Coal Companies.	Number of fans.	Persons employed in the mine.	Number of separate splits of air.	Cubic feet of air at the inlet.	Cubic feet of air at the face of workings.	Cubic feet of air at the outlet.
37. Alden,	Alden Coal Company,	1	356	5	86 900	61 065	95,175
38. Avondale,	Delaware, Lackawanna and Western Railroad Co.,	2	220	7	135 000	125,900	138 900
39. Dodson,	Plymouth Coal Company,	1	227	4	56 935	46 155	59,780
40. Dorrance,	Lehigh Valley Coal Company,	1	75	4	116 867	94 780	169,101
41. West End,	West End Coal Company,	3	167	4	128 000	49,000	180 000
42. Franklin Old Slope,	Franklin Coal Company,	1	114	6	64,160	47,221	102,000
43. Franklin Brown Slope,	Franklin Coal Company,	1	84	7	27,500	23 300	45,000
44. Hillman Vein,	Hillman Vein Coal Company,	1	1 5	5	107,980	74,074	121,794
45. Moffet Tunnel,	Hanover Coal Company,	1	190	3	30,000	13,000	35,000
46. Moffet Shaft,	Hanover Coal Company,						
47. Parrish Slope,	Parrish Coal Company,	1	179	3	55,750	44,250	55 950
48. Parrish Tunnels,	Parrish Coal Company,	1	124	3	60,650	46,400	60,500
49. Red Ash No. 1,	Red Ash Coal Company,	1	163	3	53 625	21,950	53 810
50. Red Ash No. 2,	Red Ash Coal Company,		219	4	44,195	33 426	45,600
51. Warrior Run,	A. J. Davis & Co.,	1	150	6	97,330	58,930	98 910
Totals,		64	10,047	244	5,174,472	3,892,478	5,438,553

N. B.—There were 3,166 persons employed where the main currents were passing which were not reported as working in any particular split of air. Adding this to the above number makes a total of 13,213 persons employed underground, and an average of 391 cubic feet of air per minute was entering the mines for each person employed.

Examination of Applicants for Mine-Foreman's Certificate.

The annual examination of applicants for mine-forman's certificate in the Third district was held in the Central school building, Wilkes-Barre, Pa., June 21 and 22.

The examiners were G. M. Williams, inspector; Charles Conyngham, operator, both of Wilkes-Barre, Pa., and James Fisher, miner, of Nanticoke, Pa.

Forty-five applicants for certificates of qualification appeared for examination, and the following thirty-two were successful:

John W. Joseph, William T. Evans, Daniel P. James, A. J. Gallagher, Andrew H. Weir, John Heycock, Jonathan Weir, William P. Howells, Richard Martin, Jacob D. Jones and Samuel Griffith, of Wilkes-Barre, Pa.; R. M. Williams, Samuel R. Morgan, William E. Howells, T. M. Rees, Edward Roderick, Thomas Cross, John I. Williams, H. G. Willams, Benjamin Richards and John R. Williams, of Plymouth, Pa.; Mordecai Dando, John D. Williams and William A. Jones, of Edwardsdale, Pa.; Henry R. Jones, John Winters and John I. Absalom, of Nanticoke, Pa.; Rees Morgan and John R. Morris, of Sugar Notch; Richard Faull and Griffith G. Roberts, of Ashley; W. S. Williams, of Peeley, Pa.

A. Rees, Nanticoke, Pa., applied for certificate of service, and was recommended to receive one.

Mine Improvements During 1887.

Lehigh and Wilkes-Barre Coal Company.—At the Stanton mine air-shaft this company is erecting a new fan thirty-five feet diameter to duplicate the present one, so that one may be used while the other is undergoing repairs. They have found it dangerous to allow the ventilation to cease traversing, because in such a gaseous mine blowers of gas may be burning which cannot be detected by examination, and yet would ignite the gas when the mine would be filled to the point where the burning blower might be.

At the No. 9 colliery, Sugar Notch, a new fan twenty-four feet diameter is in course of erection to ventilate the upper seams. The workings have extended so that this was found necessary.

At the Nottingham colliery, Plymouth, a new air-shaft 12′x30′ was sunk from the surface to the Ross seam, where it will be connected to the Red Ash seam by a tunnel now being driven for the purpose of improving the ventilation. A fan twenty-four feet diameter is being erected in the shaft which is expected to effect material improvement.

The new shaft at South Wilkes-Barre is sunk to a point twenty-four feet below the Baltimore seam, a total depth from surface of 1,064 feet. The coal was found in its usual thickness of sixteen feet and of excellent quality. They are now at work putting up partitions and linings preparatory to opening the gangways, etc. The indications are favorable for an unusually productive colliery.

Delaware and Hudson Canal Company.—A new opening was effected for the Conyngham colliery, connecting with the workings of the Baltimore slope, in October, 1887. It provides a convenient escape way for the workmen of both collieries, and makes everybody connected with those mines feel safer in case anything should happen to prevent exit through the main openings.

The No. 2 Baltimore shaft is now at a depth of over 500 feet, and is expected to cut the Red Ash seam at a depth of 670 feet. At No. 3, which is to constitute the second opening, gangways are being driven to open work, and to be ready to ship coal when the main shaft shall be completed

At the Boston mines the fan at No. 3 was applied to ventilate its workings, and it gives fair results. Still the ventilation of this mine is not satisfactory, but when the air-ways are fully prepared, an improvement is confidently expected.

Susquehanna Coal Company.—At the No. 1 shaft of this company two new underground slopes were sunk, one in the Forge seam and the other in the Buck Mountain. To avoid the trouble arising from the heat radiating from the steam pipes, the hoisting engines are located on the surface, and the ropes pass through bore-holes made for the purpose. Telephones and electric bells are used to converse and give signals.

At the No. 6 colliery, Glen Lyon, a new fan twenty-five feet diameter was erected. The engine is 24″x36″, connected directly to the shaft of the fan. It is used to ventilate the workings of the shaft. The second openings for the workings of this shaft are now completed to each of the seams.

Kingston Coal Company—The new breaker erected at the No. 4 shaft of this company was started to prepare and ship coal in October, 1887, and has been running since. It is one of the largest structures in the district. It is heated throughout by steam, and is equipped with the most efficient machinery.

Delaware, Lackawanna and Western Railroad Company.—At the Avondale colliery a new fan was erected on the new air-shaft. It is an open fan sixteen feet diameter, connected with a horizontal engine by belt gearing. Under a ventilating pressure equal eight-tenth inch of water-gauge it is exhausting 137,600 cubic feet of air per minute. A new opening was made from the lower lift of the Red Ash seam to the Ross. It is a rock tunnel 226 feet long on a grade of 18½ degrees and 7x18 feet area. It opens an extensive field of this coal seam.

The new breaker at the Woodward shafts is nearly completed. Four cages are in operation in the main shaft, and workings are being opened in both the Bennett and Red Ash seams. Second openings are being driven in both seams to connect with the air-shaft.

West End Coal Company.—A new fan was erected on this colliery sixteen feet in diameter and connected directly with the engine. It is

reported to exhaust 30,000 cubic feet of air per minute while running thirty revolutions.

Parrish Coal Company.—This company erected a new fan on their slope. It is twenty feet diameter, running forty-five revolutions per minute and exhausting 68,000 cubic feet of air per minute.

A. J. Davis.—At the Warrior Run colliery a new air-shaft was sunk, effecting a second opening to the new tunnel. It is 9x9 feet and 206 feet deep, and connects with the Baltimore seam. The main slope is being extended also to a further depth of from two to three hundred feet.

Hanover Coal Company.—The Maffet shaft of this company is being extended from the Ross to the Red Ash seam. It was down a distance of 185 feet below the Ross at the close of the year, and when completed it will open an extensive lift of good coal. A number of other improvements were made during the year.

Coal Breakers Consumed by Fire.

On Sunday, January 16, 1887, between one and two o'clock A. M., the Boston breaker of the Delaware and Hudson Canal Company, at the upper end of Plymouth, took fire and was totally consumed. It is not known how it originated, but everything in and about the breaker was destroyed. By November 3rd, a new breaker was erected near the Boston shaft, about a mile and a quarter north-east of the site of the old one. This is a great improvement on the old one. They began to pass coal through it on the date mentioned. They worked eight and one-fourth days before the old breaker took fire and forty-one and three-fourths days with the new one before the close of the year.

Burning of the Parrish Coal Company Breaker.

At about ten o'clock P. M., January 25, 1887, the breaker of the Parrish Coal Company, at Plymouth, was discovered to be on fire, and although strenuous efforts were made to prevent its destruction, it was completely destroyed in a short time. It was comparatively a new breaker, having been in operation only since December, 1884, about a month more than three years. Preparations were immediately made to erect a new one, and on July 7 it was completed and started to prepare coal for shipment to market. The new one is a fine structure, larger than the old one, and has the best appliances for preparing and separating coal.

Burning of the No. 10 Breaker.

The No. 10 breaker of the Lehigh and Wilkes-Barre Coal Company, at Sugar Notch, took fire from a passing locomotive early Monday morning, May 2, 1887, and it, with every building within a radius of two hundred feet was completely destroyed. The engine-house and slope head house on the old No. 10 slope was burned, and the cage

loaded with burning embers went down and set the slope on fire. Thus the destruction of this mine was completed. The pumps and everything in the mine were lost, and the workings had to be abandonsd and filled with water. This mine had not been in operation since December, 1884. A tunnel had been driven through the rock from the upper lift connecting with the No. 9 colliery, and upon concluding to abandon the workings of No. 10, a water-dam was erected on this tunnel to prevent the water running into the No. 9 workings. A timber dam was placed at a distance of thirty feet back from the brick dam, in which a small hole was bored to let the water through. The timber dam is submerged in the water, and in case the brick one should give way under the pressure, it would prevent the water from rushing into the No. 9 workings too suddenly. When the mine fills there will be a head of over two hundred feet or a pressure of more than 12,500 pounds on every square foot of surface. The brick dam is carefully built of the best brick obtainable, laid in the best cement. It is seven feet thick, curving on a radius of nine feet, and resting on deep hitches in the rock on each side. No one has the slightest doubt as to its strength to sustain the pressure with perfect safety.

TABLE No. 1.—Showing location of collieries in the Third Anthracite Mine District.

Name of Colliery.	Name of Operator.	Location—Luzerne county.	Name of Superintendent.	Post-Office Address.
Diamond,	Lehigh and Wilkes-Barre Coal Co.,	Wilkes-Barre,	T. H. Phillips; W. T. Smyth and S. Tonkin assts.,	Wilkes-Barre, Pa.
Hollenback,	do. do. do.	do.	do. do. do. do.	do.
Empire,	do. do. do.	do.	do. do. do. do.	do.
Stanton,	do. do. do.	do.	do. do. do. do.	do.
South Wilkes-Barre,	do. do. do.	do.	do. do. do. do.	do.
Tillinghast,	do. do. do	do.	do. do. do. do.	do.
Jersey,	do. do. do.	Ashley,	do. do. do. do.	do.
Sugar Notch Shaft,	do. do. do.	Sugar Notch,	do. do. do. do.	do.
Lance No. 1,	do. do. do.	Plymouth,	do. do. do. do.	do.
Nottingham,	do. do. do.	do.	do. do. do. do.	do.
Reynolds,	do. do. do.	do.	do. do. do. do.	do.
Wanamie,	do. do. do.	Wanamie, Newport township,	do. do. do. do.	do.
Baltimore Slope,	Delaware and Hudson Canal Co.,	Wilkes-Barre township,	A. H. Vandling; C. H. Scharar, engineer,	Providence Scranton, Pa.
Baltimore Tunnel,	do. do. do.	Wilkes-Barre,	do. do. do.	do. do.
Baltimore Shaft,	do. do. do.	Wilkes-Barre township,	do. do. do.	do. do.
Conyngham,	do. do. do.	Wilkes-Barre,	do. do. do.	do. do.
Boston,	do. do. do.	Plymouth township,	do. do. do.	do. do.
No. 2 Plymouth,	do. do. do.	Plymouth,	do. do. do.	do. do.
No. 3 Plymouth,	do. do. do.	do.	do. do. do.	do. do.
No. 4 Plymouth,	do. do. do.	do.	do. do. do.	do. do.
No. 5 Plymouth,	do. do. do.	do.	do. do. do.	do. do.
No. 4 Tunnel,	Susquehanna Coal Company,	Nanticoke,	I. A. Stearns, gen. man., and G. T. Morgan, gen. supt.,	Wilkes-Barre, Pa.
No. 1 Slope,	do. do.	do.	do. do. do. do.	Nanticoke, Pa.
No. 2 Slope,	do. do.	do.	do. do. do. do.	do.
No. 3 Slope,	do. do.	West Nanticoke,	do. do. do. do.	do.
No. 4 Slope,	do. do.	Nanticoke,	do. do. do. do.	Wilkes-Barre, Pa.
No. 1 Shaft,	do. do.	do.	do. do. do. do.	Nanticoke, Pa.
No. 2 Shaft,	do. do.	do.	do. do. do. do.	do.
Newport Shaft,	do. do.	Glen Lyon,	do. do. do. do.	do.
Newport Slope,	do. do.	do.	do. do. do. do.	do.
Newport Tunnel,	do. do.	do.	do. do. eo. do.	do.
No. 1 Shaft,	Kingston Coal Company,	Edwardsdale,	Daniel Edwards,	Kingston, Pa.
No. 2 Shaft,	do. do.	do.	do.	do.
No. 3 Shaft,	do. do.	do.	do.	do.
No. 4 Shaft,	do. do.	do.	do.	do.
Gaylord Shaft,	do. do.	Plymouth,	do.	do.
Gaylord Slope,	do. do.	do.	do.	do.
Alden Tunnel,	Alden Coal Company,	Alden,	K. M. Smith,	Alden, Luzerne co., Pa.
Alden Shaft,	do. do.	do.	do.	do. do.
Avondale,	Del., Lackawanna & West. R. R. Co.	Plymouth township,	W. R. Storrs, G. M., B. Hughes, G. I. F., W. H. Storr, G. O. F.,	Scranton, Pa.
Woodward No. 1,	do. do. do.	do.	do. do. do.	do.
Woodward No. 2,	do. do. do.	do.	do. do. do.	do.
Dodson,	Plymouth Coal Company,	Plymouth,	James B. Davies,	Plymouth, Pa.
Dorrance,	Lehigh Valley Coal Company,	Wilkes-Barre,	Fred. Mercur,	Wilkes-Barre, Pa.
East End,	West End Coal Company,	Mocanaqua,	John Teasdale,	Shickshinny, Pa.
West End,	do. do.	do.	do.	do.

TABLE No. 1—Continued.

NAME OF COLLIERY.	Name of Operator.	Location—Luzerne county.	Name of Superintendent.	Post-Office Address.
Franklin Slope,	Franklin Coal Company,	Wilkes-Barre,	R. R. Morgan,	Wilkes-Barre, Pa.
Brown Slope,	do. do.	do.	do.	do.
Rock Slope,	do. do.	do.	do.	do.
Hillman Shaft,	Hillman Vein Coal Company,	do.	Joseph Shearn,	do.
Maffet Shaft,	Hanover Coal Company,	Sugar Notch,	J. Roberts, Jr.,	do.
Maffet Tunnel,	do. do.	do.	do.	do.
No. 1 Red Ash,	Red Ash Coal Company,	Wilkes-Barre township,	M. B. Williams,	do.
No. 2 Red Ash,	do. do.	do.	do.	do.
Warrior Run,	A. J. Davis,	Hanover township,	A. J. Davis,	do.
Parris,	Parrish Coal Co.,	Plymouth,	H. H. Ashley,	Plymouth, Pa.

TABLE No. 2.—Gives the total number of tons of coal mined and tons of coal shipped in each colliery, number of days worked, number of employés, number of persons killed and injured, number of kegs of powder used, &c., in the Third Anthracite Mining District, for the year ending December 31, 1887.

Names of Collieries.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.
Lehigh and Wilkes-Barre Coal Company:											
1. Diamond,	Wilkes-Barre,	94 525.11	94 143.11	195.50	247	. . .	5	2,482	24	34	1
2. Hollenback,	do.	254 56 .11	232 036 16	219 10	578	2	1	6 670	30	40	. .
3. Empire,	do.	249,372.15	246,792 00	197.65	811	2	11	7 001	30	44	2
4 Hartford or Jersey,	Ashley,	123 118.19	119 039.04	184 55	478	3	7	3 983	24	27	1
5. Stanton,	Wilkes-Barre,	273,472 15	266,475.15	220 95	653	3	10	4 649	40	62	1
6. Sugar Notch Shaft,	Sugar Notch,	184 839.11	182 722.11	207.60	620	3	7	6 587	23	45	1
7. Lance or No. 11,	Plymouth,	193 648 17	193 622 17	210 1.	560	4	3	6 539	12	40	.
8. Nottingham,	do.	498 014.12	489 479 17	206.55	1 107	3	8	10 284	29	95	2
9. Reynolds,	do.	149 630.14	149 468.04	203.00	533	. . .	3	4 509	13	60	.
10. Wanamie,	Newport township,	151.051 05	149 215.00	207.65	506	. . .	3	5,355	13	56	1
11. South Wilkes-Barre,	Wilkes-Barre,	5,869.12	5 869.00	No breaker	21	. . .	1	. . . .	6	1	
Totals,		2,178 150.02	2,128 864 15	205.27	6,114	20	59	58,059	244	504	9
Delaware and Hudson Canal Company:											
12. Baltimore Slope,	Wilkes-Barre township,	69 645 00	69,645.00	197.00	263	. . .	1	2,484	20	25	. .
13. Baltimore Shaft,	do. do.										
14 Baltimore Tunnel,	Wilkes-Barre,	132,854 08	130 419.07	222 25	374	2	2	4 623½	18	43	2
15. Conyngham,	do.	84,656.16	83 156.07	195 75	259	. . .	11	2 051	14	28	. . .
16. Boston,	Plymouth township,	49 209.06	39 609.06	50.00	322	. .	1	977	9	41	. . .
17. No. 2,	Plymouth,	177, 307.11	177.307.11	216.75	443	1	6	5.699	9	53	. .
18. No. 3.	Plymou h township,	223.939.01	222,092 02	234.25	42	2	.	7,159	5	50	. .
19. No. 4,	Plymouth,	173 801.14	173 801.14	215 00	362	1	2	5,796	12	45	. . .
20. No. 5,	do.	203,732 09	200,129 04	217.25	423	. .	2	5 496	15	57	1
Totals,		1,106,146 05	1,096,15 .11	193.53	2,875	6	25	34 285	112	342	3

Lehigh and Wilkes-Barre Coal Company.—Forty-one thousand six hundred and fifty-five (41,655) tons of the above was Buckwheat coal.

TABLE No. 2—Continued.

NAME OF COLLIERIES.	LOCATION.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.
Susquehanna Coal Company :											
21. No. 1 Slope, Breaker No. 1,	Nanticoke,	188,453 17	1,562,456.04	241.85	431	2	5	39,086	26	39	1
22. Nos. 1 and 4 Tunnel, Breaker No. 1,	do.					1	1				
23. No. 1 Shaft, Breaker No. 2,	do.					2	9				
24. No. 1 Deep Shaft, Breaker No. 2,	do.	460,403.06		246 30	1,474	1	13		86	161	6
25. No. 2 Slope, Breaker No. 2,	do.					3	9				
26. No. 3 Slope or Grand Tunnel,	West Nanticoke,	117,885 04		195.35	310	2	10		29	36	1
27. No. 2 Shaft, Breaker No. 5,	Nanticoke,	514 805.04		245.85	1,104	*2	6		66	165	2
28. No. 4 Slope, Breaker No. 5,	do.						6				
29. Newport Tunnel, Breaker No. 6,	Glen-Lyon,						6				
30. Newport Shaft, Breaker No. 6,	do.	279,982.13		228 20	1,119		5		84	80	1
31. Newport Slope, Breaker No. 6,	do.						1				
Totals,		1,561,530 04	1,562 456.04	131.51	4,438	20	71	39.086	291	482	11
Kingston Coal Company :											
32. No. 1 Shaft,	Edwardsdale,	249,762 15	234 387 01	234.00	594	2	3	6,695	46	57	. . .
33. No. 4 Shaft,	do.			62 60		. .	3				
34. No. 2 Shaft, Breaker No. 2,	do.	371,559.02	363,507.05	240.65	760	2	3	8,686	39	71	4
3 . No. 3 Shaft, Breaker No. 2,	do.					1	7				
36. Gaylord Shaft,	Plymouth,	248,276 10	239,726.00	184.55	532	. .	. .	5,839	29	51	. .
37. Gaylord Slope,	do.					. .	8				
Totals,		869,598 07	837,620.06	219.93	1 883	5	24	21,220	114	179	4
Miscellaneous Coal Companies :											
38. Alden,	Newport township,	263 073.12	255 444.08	261.40	636	2	6	19,065	15	58	.
39. Avondaly,	Plymouth township,	172,589.11	166,168.11	201.00	455	4	4	4,521	26	67	1
40. Woodward,	do. do.	4,464 00	Breaker not ready. . . .		111	. .	.	272	12	13	.

41. Dodson,	Plymouth,	154 041.00	139 091.00	184 90	369	3	5	5,407	15	42	. . .
42. Dorrance,	Wilkes-Barre,	51,650 06	40.016.11	244.75	136	. . .	2	1,982	12	14	1
43. East End,	Mocanaqua,	Th s collier y dld not work.									
44. West End,	do.	172 259 16	152 860.14	264.19	392	. . .	5	5,095	19	43	2
45. Franklin,	Wilkes-Barre,	161 335 10	156 861.15	244 75	505	1	6	3 875	41	47	2
46. Hillman Vein,	do.	97 417 04	75 032 09	247.10	327	1	4	3 716	9	27	. . .
47. Maffet,	Sugar Notch,	136 658 05	133 068 05	206.50	360	3	3	4 101	9	22	. . .
48. Parish.	Plymouth,	187 957.06	185 743.11	162.49	617	. .	4	5 832	19	75	. . .
49. Red Ash No. 1,	Wilkes-Barre township,	145 781.06	145 781 06	191.65	308	. .	4	4 365	6	29	. .
50. Red Ash No. 2,	do. do.	177 742 01	175 120.01	207 05	365	. . .	7	5,242	5	31	. . .
51. Warrior Run,	Hanover township,	92,388.12	80,854.12	202.25	260	. . .	1	1,996	24	20	. . .
Total,		1,825,329.09	1,709,043.03	†218 41	4,841	14	51	56,469	215	488	6

RECAPITULATION.

Lehigh and Wilkes-Barre Coal Company,	2,178 150 02	2.128 864.15	205 27	6,114	20	59	58.059	244	504	9
Delaware and Hudson Canal Company,	1.106 146.05	1 096.154 11	193 53	2 875	6	25	34 285½	112	342	3
Susquehanna Coal Company,	1,561 530 04	1,562 456 04	231 51	4.438	20	71	39 086	291	482	11
Kingston Coal Company,	869 593 07	837 620 06	219 93	1,886	5	24	21 220	114	179	4
Miscellaneous Coal Companies,	1,825 329.09	1,709 043.03	218 41	4 841	14	51	56 469	215	488	6
Totals,	7,540,754.07	7,334,138.19	†213.73	20,154	65	230	209,119¾	976	1,995	33

One non-fatal accident was reported from the No. 10 Slope Sugar Notch, and one from the Salem Colliery, adding which, makes the total of non-fatal accidents equal two hundred and thirty-two.
The culm used at the mines is not included in these tables.

*One of these occurred in the carpenter-shop.
†Average.

TABLE No. 3.—Showing the number of each class of employés at each colliery in the Third Anthracite Mine District, during the year 1887.

NAMES OF COLLIERIES.	LOCATION—All in Luzerne County.	NUMBER OF PERSONS EMPLOYED INSIDE.							NUMBER OF PERSONS EMPLOYED OUTSIDE.							Grand totals—Inside and outside.
		Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All company men.	Superintendent, book-keepers and clerks.	Total outside.	
Lehigh and Wilkes-Barre Coal Co.:																
1. Diamond,	Wilkes-Barre,	1	40	23	42	21	14	141	1	3	10	48	43	1	106	247
2. Hollenback,	do.	1	131	134	56	35	30	390	1	4	19	107	56	1	188	578
3. Empire,	do.	1	160	160	61	70	25	477	1	2	13	220	97	1	334	811
4. Hartford or Jersey,	Ashley,	1	109	73	51	15	17	266	1	4	15	138	53	1	212	478
5. Stanton,	Wilkes-Barre,	1	128	140	41	78	30	418	1	3	23	153	54	1	235	653
6. Sugar Notch Shaft,	Sugar Notch,	1	126	131	75	34	31	398	1	5	11	135	69	1	222	620
7. Lance No. 11,	Plymouth,	1	130	100	58	41	26	356	1	4	9	151	38	1	204	560
8. Nottingham,	do.	1	296	180	108	97	53	735	1	6	10	279	75	1	372	1,107
9. Reynolds,	do.	1	117	120	38	43	37	356	1	3	7	120	45	1	177	533
10. Wanamie,	Newport township,	1	138	115	38	41	16	349	1	5	12	85	53	1	157	506
11. South Wilkes-Barre,	Wilkes-Barre,	1	....	....	....	....	....	1	..	2	3	....	15	....	20	21
Totals,		11	1,378	1,176	568	475	279	3,887	10	41	132	1,436	598	10	2,227	6,114
Delaware and Hudson Canal Co.:																
12. Baltimore Slope,	Wilkes-Barre township,	2	40	40	62	....	2	146	1	5	9	64	38	....	117	263
13. Baltimore Shaft,	do. do.															
14. Baltimore Tunnel,	Wilkes-Barre,	1	70	65	31	31	8	209	1	6	13	105	37	3	165	374
15. Conyngham,	do.	1	42	42	42	26	7	160	1	3	8	60	25	2	99	259
16. Boston,	Plymouth township,	1	66	66	37	32	14	216	1	4	8	52	40	1	106	322
17. No. 2,	Plymouth,	2	86	86	55	54	21	304	1	6	11	80	39	2	139	443
18. No. 3,	do.	2	102	102	40	49	30	325	1	3	7	63	29	1	104	429
19. No. 4,	do.	1	87	83	36	43	18	268	2	4	10	46	30	2	94	362
20. No. 5,	do.	1	93	82	69	44	33	322	1	6	10	54	28	2	101	423
Totals,		11	586	566	375	279	133	1,950	9	37	76	524	266	13	925	2,875
Susquehanna Coal Company:																
21. No. 1 Slope, Breaker No. 1,	Nanticoke,	1	92	110	17	31	14	265	1	9	6	79	70	1	166	431
22. Nos. 1 and 4 Tunnel, Breaker No. 1,	do.															
23. No. 1 Shaft,	do.															
24. No. 1 Deep Shaft, Breaker No. 2,	do.	3	260	500	117	136	54	1,070	1	17	30	165	190	1	404	1,474
25. No. 2 Slope, Breaker No. 2,	do.															

26. No. 3 Grand Tunnel,	West Nanticoke,	1	58	49	31	12	6	157	1	5	6	99	41	1	153	310
27. No. 2 Shaft, Breaker No. 5,	Nanticoke,	2	225	385	84	100	49	845	1	9	17	143	87	2	259	1,104
28. No. 4 Slope, Breaker No. 5,	do.															
29. Newport Tunnel, Breaker No. 6,	Glen Lyon,	2	275	375	34	61	17	764	1	15	14	245	78	2	355	1,119
30. Newport Shaft, Breaker No. 6,	do.															
31. Newport Slope, Breaker No. 6,	do.															
Totals,		9	910	1,419	283	340	140	3,101	5	55	73	781	466	7	1,337	4,438
Kingston Coal Company:																
32. No. 1 Shaft,	Edwardsdale,	3	138	126	47	49	28	391	1	6	11	133	43	9	203	594
33. No. 4 Shaft,	do.															
34. No. 2 Shaft,	do.	2	190	170	44	58	40	504	2	13	17	165	57	2	256	760
35. No. 3 Shaft,	do.															
36. Gaylord Shaft,	Plymouth,	2	140	55	28	58	8	291	2	10	12	160	55	2	241	532
37. Gaylord Slope,	do.															
Totals,		7	468	351	119	165	76	1,186	5	29	40	458	155	13	700	1,886
Miscellaneous Coal Companies:																
38. Alden,	Newport township,	1	160	131	73	61	15	441	1	7	10	123	48	6	195	636
39. Avondale,	Plymouth township,	2	99	103	43	46	10	303	1	31	8	90	22	....	152	455
40. Woodward,	do.	1	20	14	18	....	....	53	1	4	8	....	45	....	58	111
41. Dodson,	Plymouth,	1	85	60	56	33	15	250	1	8	9	49	50	2	119	369
42. Dorrance,	Wilkes-Barre,	1	21	19	14	13	3	71	1	4	6	22	29	3	65	136
43. East End,	Mocanaqua,	Did not work.														
44. West End,	do.	1	115	75	20	52	5	268	3	5	6	57	50	3	124	392
45. Franklin,	Wilkes-Barre,	1	90	66	60	26	21	264	1	10	17	77	134	2	241	505
46. Hillman Vein,	do.	1	75	79	29	27	28	289	1	4	8	51	21	3	88	327
47. Maffet,	Sugar Notch,	1	70	70	10	13	11	175	1	6	5	125	46	2	185	360
48. Parrish,	Plymouth,	2	198	138	58	56	22	391	1	4	9	144	62	3	223	617
49. Red Ash No. 1,	Wilkes-Barre township,	1	82	63	15	27	7	195	1	5	5	54	46	2	113	308
50. Red Ash No. 2,	do. do.	1	91	89	18	31	9	242	1	5	3	60	52	2	123	365
51. Warrior Run,	Hanover township,	1	81	77	12	15	8	194	1	5	8	35	15	2	66	260
Totals,		15	1,130	984	406	400	154	3,089	15	98	102	887	620	30	1,752	4,841

RECAPITULATION.

Lehigh and Wilkes-Barre Coal Company,	11	1,378	1,176	568	475	279	3,887	10	41	132	1,436	598	10	2,227	6,114
Delaware and Hudson Canal Company,	11	586	566	375	279	133	1,950	9	37	76	524	266	13	925	2,875
Susquehanna Coal Company,	9	910	1,419	283	340	140	3,101	5	55	73	781	466	7	1,337	4,438
Kingston Coal Company,	7	468	351	119	165	76	1,186	5	29	40	458	155	13	700	1,886
Miscellaneous Coal Company,	15	1,130	984	406	400	154	3,089	15	98	102	887	620	30	1,752	4,841
Totals,	53	4,472	4,496	1,751	1,659	782	13,213	44	260	423	4,036	2,105	73	6,941	20,154

TABLE 4.—List of fatal accidents occurring in and about the mines of the Third Anthracite Mine District, for the year ended December 31, 1887.

Date of accident.	No. of accident.	NAME OF PERSON.	Occupation.	Age.	Widow.	No. of children.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 9	1	Michael Slocum,	Watchman,	72	. .	. .	Avondale,	Luzerne,	Fatally injured by a fall.
25	2	Michael Sweeney,	Miner,	24	. .	. .	Maffet,	do.	Killed by a fall of coal.
31	3	James Tully,	do.	40	. .	. .	do.	do.	Killed by a fall of rock.
Feb. 7	4	James Hayes,	Chute tender,	14		. .	Standard Breaker,	do.	Smothered by being drawn into a coal chute.
17	5	Albert Doering,	Miner,	37	1	6	Shaft No. 2,	do.	Killed by a fall of coal.
18	6	Thomas Bilbow,	Laborer,	50	1	6	do.	do.	Fatally injured by a fall of rock.
19	7	George Lewis,	Door tender,	14	.	. .	Shaft No. 9,	do.	Fatally injured; crushed by a car.
26	8	John Blewitt,	Miner,	55	1	6	Stanton,	do.	Killed by a fall of coal.
Mar. 5	9	John Tichler,	do.	42	1	4	Shaft No. 4	do.	Killed by a fall of rock.
10	10	John Holleran,	Driver,	17			Franklin Slope,	do.	Fatally injured by being crushed by a car.
16	11	Christian Conrad,	Miner,	54	1	2	Hollenback,	do.	Fatally injured by a fall of coal.
18	12	Edward Williams,	Laborer,	25	1	2	Baltimore Tunnel,	do.	Killed by a fall of rock.
26	13	James Owltski,	do.	21	. .	. .		do.	Killed by a fall of rock.
Apr. 2	14	Richard Williams,	Bratticeman,	54	. .	3	Slope No. 3,	do.	Killed by an explosion of gas.
4	15	Michael Cosmar,	Laborer,	28	. .	. .	Lance No. 11,	do.	Killed by a fall of rock.
8	16	Michael Molloy,	do.	23	. .	. .	Shaft No. 1,	do.	Killed by a fall of rock.
19	17	John Butch,	do.	23	. .	. .	Newport Tunnel,	do.	Killed by a fall of rock.
11	18	Thomas L. Morgan,	Outside foreman,	56	1	. .	Breaker No. 1,	do.	Killed by being crushed by cars.
May 11	19	Arthur McGeer,	Laborer,	40	1	6	Avondale,	do.	Found dead in the mines.
17	20	William D. Walters,	Engineer,	47	1	7	Breaker No. 2,	do.	Killed by being run over by cars.
18	21	William E. Griffiths,	Fire boss,	55	1	3	Alden,	do.	Fatally injured by being crushed between cars.
27	22	Daniel Hannegan,	Miner,	48	1	8	Shaft No. 3,	do.	Killed by a fall of rock.
June 4	23	Owen Reynolds,	Laborer,	32	.	.	Empire,	do.	Killed by a fall of coal.
6	24	Owen Lloyd,	Miner,	60	1	3	Jersey,	do.	Killed by a fall of coal.
17	25	Frank Lathofski,	do.	31	1	1	Tunnel No. 4	do.	Fatally injured by a fall of coal.
20	26	John Jones,	Slate picker,	14	. .	.	Breaker No. 2,	do.	Crushed to death by being caught in screen.
23	27	John McManaman,	Miner,	34	1	2	Slope No. 4,	do.	Killed by explosion of gas.
23	28	James Kealy,	Laborer,	26	.	.			
23	29	Latsy Verbine,	do.	28	. .	.			
24	30	Henry Jones,	Docking boss,	25	. .	. .	Lance No. 11,	do.	Killed by being crushed by machinery.
27	31	Michael Donahue,	Laborer,	25	.	. .	Newport Slope,	do.	Fatally injured by fall of clay.
July 6	32	Alexander Dwyer,	Miner,	47	1	8	Newport Shaft,	do.	Killed by machinery.
18	33	Charles Zerman,	No employee,	25	.	. .	Stanton,	do.	Crushed to death by being caught by cage.
21	34	John Birch,	Laborer,	25	1	. .	Hillman Vein,	do.	Killed by coal from a blast.

Aug.	1	35	David Davies,	Miner,	53	1	4	Nottingham,	Killed by a fall of coal.
	1	36	John P. Jones,	Laborer,	25	1	2	Shaft No. 1, Forge Vein,	Killed by a fall of rock.
	10	37	Levi Davenport,	Door tender,	15	..	..	Slope No. 3,	Killed by a car.
	2[illegible]	38	John Coralus,	Runner,	20	..	..	Slope No. 1,	Killed by being crushed between cars.
	27	39	Thomas Martin,	Laborer,	24	..	..	Shaft No. 9,	Killed by a fall of coal.
Sept.	5	40	Richard McGwire,	Miner,	35	1	6	Nottingham,	Killed by a fall of coal.
	16	41	William Makowski,	Laborer,	28	1	..	Dodson,	Killed by coal from blast.
	20	42	John Medulla,	Driver,	18	..	..	Slope No. 2,	Killed by being kicked by a mule.
	24	43	Edwin Lewis,	do.	16	..	..	Shaft No. 9,	Killed by a fall of rock.
	28	44	Batistus Botto,	Miner,	30	.	..	Newport Tunnel,	Killed by being run over by a car.
Oct.	13	45	Watkin Williams,	Helper,	17	.	..	Jersey,	Killed by being crushed by a car.
	14	46	John Kakalecic,	Miner,	37	1	6	Dodson,	Killed by a fall of rock.
	19	47	Patrick Ward,	Laborer,	23	1	..	Avondale,	Killed by a fall of coal.
	21	48	John Shippal,	do.	34	1	4	Slope No. 2,	Killed by a fall of rock.
	21	49	Andrew Cosmella,	Door tender,	60	1	3	Lance No. 11,	Crushed to death by gangway cage.
	26	50	James Thomas,	Miner,	42	1	6	Nottingham,	Fatally burned by explosion of gas.
	27	51	Fred. Ludick,	do.	56	1	..	Shaft No. 1, Forge Vein,	Crushed to death by a car.
	31	52	James Ferry,	Laborer,	27	1	.	Baltimore Tunnel,	Killed by a fall of coal.
Nov.	4	53	Charles Bertram,	do.	20	1	..	Hollenback,	Crushed to death by a car.
	5	54	Hugh Brislin,	Miner,	60	1	11	Jersey,	Fatally burned by an explosion of powder.
	9	55	Michael Gleason,	Driver,	18	.	.	Shaft No. 3,	Killed by being crushed by a car.
	10	56	Stephen Markinock,	Laborer,	26	1	1	Breaker No. 1,	Killed by being crushed by a car.
	16	57	William R. Powell,	Miner,	42	1	3	Dodson,	Killed by a fall of roof.
	21	58	August Josuple,	Carpenter,	41	1	.	Carpenter Shop,	Killed by rupturing a blood vessel.
	25	59	Evan Roberts,	Miner,	32	1	3	Shaft No. 1, Lee Vein,	Killed by being crushed between cars.
	28	60	[illegible] ahan,	Laborer,	26	..	..	Maffet,	Killed by a fall of coal.
	28	61	Evan Thomas,	Driver,	20	..	..	Lance No. 11,	Fatally injured by being kicked by a mule.
Dec.	7	62	William Buckley,	do.	15	..	..	Avondale,	Killed by being run over by a car.
	9	63	William Stone,	Door boy,	15	..	..	Shaft No. 2,	Killed by being crushed by a car.
	29	64	Michael Motsa,	Slate picker,	25	..	..	Alden Breaker,	Killed by suffocation.

RECAPITULATION.

Occupations:

Miners,	21
Laborers,	21
Drivers and runners,	8
Door tenders,	4
All other causes,	11
Total,	65

Nationality:

Welsh,	16
Irish,	16
Americans,	7
English,	6
Polish,	7
Hungarian,	8
German,	4
Italian,	1
Total,	65

Causes of the accidents:

By explosions of gas,	6
By falls of roof and coal,	27
By falling down shafts,	0
Crushed and run over by mine cars,	11
By explosions of powder and blasts,	3
By miscellaneous causes inside of mines,	7
By miscellaneous causes outside of mines,	11
Total,	65

TABLE No. 5.—List of non-fatal accidents occurring in and about the mines of the Third Anthracite Mine District for the year ended December 31, 1887.

Date of accident.	No. of accident.	NAME OF PERSON.	Occupation.	Age.	Married.	No. of children.	Name of Colliery.	Location. Luzerne county.	Nature and Cause of Accident.
Jan. 3,	1	John Thomas, ...	Car oiler, . .	17	No, .	. . .	Shaft No. 2, ...	Edwardsville, ...	Foot crushed under railroad cars on surface, necessitating amputation.
8,	2	Albert Thomson, . . .	Miner, ...	. . .	. . .	. . .	Salem, ...	Shickshinny, ...	Bruised and cut slightly by a fall of coal.
10,	3	Joseph Onusko, ...	Headman, . .	34	Yes, .	2	Breaker No. 1, ...	Edwardsville, ...	Leg broken in two places by a car running upon it.
11,	4	William Titus, ...	Runner, . . .	21	No, .	. . .	West End, ...	Mocanaqua, ...	Back painfully injured by a fall of slate.
20,	5	Lewis Davies, ...	Miner, ...	24	No, .	. . .	Stanton, ...	Wilkes-Barre, ...	Big toe severely cut by a lump of coal sliding on it.
20,	6	Daniel Mainwaring, . .	Laborer, . . .	23	No, .	. . .	Shaft No. 4, ...	Edwardsville, ...	Little toe crushed by a fall of rock.
22,	7	David Martin, ...	Driver, ...	18	No, .	. . .	Shaft No. 1, ...	do.	Slightly hurt by being caught between a car and rib.
22,	8	Dennis Mack, ...	do.	14	No, .	. . .	Parrish, ...	Plymouth, ...	Small bone of leg fractured, caught between cars on surface.
25,	9	John Griffiths, ...	Miner, ...	24	Yes, .	1	Newport Tunnel, ...	Glen-Lyon, ...	Jaw bone fractured and severely cut on head by a fall of top coal.
25,	10	P. J. Caffrey, ...	do.	30	No, .	. . .	Maffet, ...	Sugar Notch, ...	Jaw bone fractured by a fall of rock.
27,	11	David Williams, ...	Slate-picker, .	13	No, .	. . .	Stanton, ...	Wilkes-Barre, ...	Fell from a platform in the breaker and was severely injured.
28,	12	John Mayers, ...	Miner, ...	35	Yes, .	2	do.	do.	Leg fractured below the knee by a fall of slate.
28,	13	James McBride, ...	Laborer, . . .	25	No, .	. . .	Red Ash No. 2, ...	Wilkes-Barre township,	Back bruised and cut on head by a fall of rock.
Feb. 1,	14	John D. Daniels, . . .	Miner, ...	48	Wid.,	4	Shaft No. 1, Lee Vein, .	Nanticoke, ...	Daniels was severely burned and the other two slightly, by an explosion of gas.
1,	15	David H. Williams, . .	Laborer, . . .	30	Yes, .	. . .			
1,	16	John E. Williams, . . .	do. . . .	27	Yes, .	. . .			
2,	17	William Barnett, . . .	Miner, ...	45	Wid.,	. . .	West End, ...	Mocanaqua, ...	Painfully injured by being crushed between a car and rib.
4,	18	Robert Dillon, ...	Pump runner,	34	Yes, .	1	Franklin, ...	Wilkes-Barre, ...	Hip painfully bruised by coal falling on him.
5,	19	Stanis Garskanski, . .	Miner, ...	32	Yes, .	2	Slope No. 3, ...	West Nanticoke, ...	Face and hands badly burned by an explosion of gas.
7,	20	William Seriks, ...	Laborer, . . .	30	No, .	. . .	Lance No. 11, ...	Plymouth, ...	Face and hands burned by an explosion of powder.
8,	21	Joseph James, ...	Driver, ...	21	No, .	. . .	Stanton, ...	Wilkes-Barre, ...	Leg broken in two places, caught between a car and door.
10,	22	Michael Collobob, . . .	Miner, ...	28	Yes, .	3	Newport Shaft, ...	Glen-Lyon, ...	Two ribs fractured and body bruised by a fall of fire-clay roof.

	10,	23	Martin Polobis,	do.	27	No,		Newport Shaft,	Glen-Lyon,	Faces and hands slightly burned by an explosion of gas, caused by a fall of coal bringing it down on their lamps.
	10,	24	John Polobis,	Laborer,	25	No,				
	12,	25	John Hunragy,	do.	32	Yes,		Breaker No. 4,	Edwardsville,	Back severely sprained by a car, which was half on the cage, tipping upon him.
	12,	26	W. G. Williams,	Door-tender,	16	No,		Shaft No. 3,	do.	Struck his head against the roof while riding on a car and was severely hurt.
	12,	27	Burnett White,	Runner,	21	No,		Hillman Vein,	Wilkes-Barre,	Severely bruised; was caught between two cars.
	15,	28	Frederick Sprow,	Ash-wheeler,	38	No,		Dorrance,	do.	Face slightly scalded by steam escaping from a burst pipe.
	16,	29	David James,	Driver,	17	No,		Shaft No. 2,	Plymouth,	Compound fracture of leg, caused by falling under cars.
	17,	30	Evan T. Williams,	Miner,	35	Yes,	1	Slope No. 2,	Nanticoke,	Jaw bone fractured, eye destroyed and face severely bruised by a premature blast.
	17,	31	James O. Boyle,	do.	40	Yes,	3	Conyngham,	Wilkes-Barre,	Severely cut on head by a fall of coal.
	17,	32	George W. Richards,	Slate-picker,	14	No,		Breaker No. 2,	Plymouth,	Leg severely lacerated by falling on a revolving screen.
	17,	33	Robert T. Williams,	Door-tender,	16	No,		Jersey,	Ashley,	Leg painfully burned; his pants, saturated with oil, took fire from his lamp.
	19,	34	Daniel Sheehan,	Miner,	45	Yes,	7	Diamond,	Wilkes-Barre,	Thigh fractured by falling while running from a blast.
	21,	35	John Sheridan,	do.	31	Yes,	2	Avondale,	Plymouth township,	Face and hands slightly burned by an explosion of powder.
	24,	36	John Polneazick,	do.	30	Yes,	5	Alden,	Alden,	Severe scalp wound and bruises on body, caused by coal flying from a blast.
	25,	37	Patrick Doyle,	Culm-driver,	16	No,		Breaker No. 4,	Plymouth,	Nose broken and cut on face and leg by being struck by a mule.
	25,	38	David W. Davies,	Miner,	33	Yes,	5	Gaylord,	do.	Bruised severely about his hips by a fall of roof.
Mar.	1,	39	John Gallagher,	do.	48	Yes,	1	Alden,	Alden,	Both legs broken by a fall of rock from roof.
	7,	40	John Harris,	Laborer,	28	No,		Gaylord,	Plymouth,	Back painfully injured by a fall of coal.
	8,	41	William Wilson,	do.	45	No,		West End,	Mocanaqua,	Arm crushed by a fall of coal, necessitating amputation.
	9,	42	David Lloyd,	Miner,	28	No,		Shaft No. 2,	Nanticoke,	Ankle sprained and cut about head and face, caused by a fall of rock.
	11,	43	John Bennett,	do.	28	No,		Diamond,	Wilkes-Barre,	Face and head cut and bruised by a premature blast.
	14,	44	Jacob Clup,	Laborer,	23	No,		Dodson,	Plymouth,	Wrist broken by a fall of rock.
	15,	45	Fred Tyler,	do.	24	No,		Conyngham,	Wilkes-Barre,	Face and hands slightly burned by an explosion of gas.
	16,	46	Henry Jenkins,	do.	27	Yes,	3	Gaylord,	Plymouth,	Squeezed between cars—painfully hurt.
	16,	47	Stephen Snyder,	Miner,	55	Yes,	6	Conyngham,	Wilkes-Barre,	By using naked lights where prohibited, a quantity of gas, which accumulated through neglecting to close a door, ignited and exploded, burning them slightly—Snyder on his hands, Blume on back and arms, Theiman on face, hands and back, and Schneider on hands.
	16,	48	William Blume,	Laborer,	22	No,				
	16,	49	William Theiman,	do.	24	No,				
	16,	50	Jacob Schneider,	Miner,	53	Yes,	4			
	16,	51	Owen Davies,	do.	28			Shaft No. 3,	Edwardsville,	Both badly cut about their head by a fall of coal.
	16,	52	William Judge,	Laborer,	24					
	17,	53	Christopher Smoke,	Miner,	47	No,		Nottingham,	Plymouth,	Thigh broken by coal rolling upon him.
	18,	54	Thomas Williams,	do.	32	No,		Red Ash No. 2,	Wilkes-Barre township,	Arm dislocated by a fall of rock.

TABLE No. 5—Continued.

Date of accident.	No. of accident.	NAME OF PERSON.	Occupation.	Age.	Married.	No. of children.	Name of Colliery.	Location. Luzerne county.	Nature and Cause of Accident.
Mar. 21,	55	William Foley, ...	Driver, ...	16	No, .	. . .	Red Ash No. 1, ...	Wilkes-Barre township,	Back bruised and severely cut on head by being dragged by a mule.
21,	56	William Carver, ...	do.	16	No, .	. . .	Shaft No. 2, ...	Plymouth, ...	Leg broken; a mule struck him with his head.
22,	57	Thomas W. Roberts, .	Miner, ...	24	Yes, .	2	Slope No. 2, ...	Nanticoke, ...	Back painfully hurt by a fall of fire-clay from roof.
22,	58	James Thomas, ...	Laborer, . . .	19	No, .	. . .	Shaft No. 2, ...	Plymouth, ...	Right leg broken by a fall of rock.
25,	59	John Judge, ...	do. . . .	22	No, .	. . .	Shaft No. 3, ...	Edwardsville, ...	Both were slightly burned by an explosion of gas.
25,	60	Michael Costello, . . .	do. . . .	25	No, .	. . .			
25,	61	Albert Hamill, ...	Miner, ...	24	No, .	. . .	do.	do.	Two severe cuts on head and knee bruised by a fall of coal.
25,	62	Con. O. Boyle, ...	Driver, ...	17	No, .	. . .	Dodson, ...	Plymouth, ...	Several teeth kicked out by a mule.
25,	63	John Mattes, ...	Laborer, . . .	23	No, .	. . .	Stanton, ...	Wilkes-Barre, ...	Bruised on head, arm and leg by a fall of coal.
31,	64	Thomas Thomas, . . .	Door-tender, .	15	No, .	. . .	Shaft No. 3, ...	Edwardsville, ...	Thigh broken, ankle dislocated and arm hurt by falling under cars.
April 1,	65	James Hammil, ...	Timber-man,	44	Yes, .	2	Slope No. 10, ...	Sugar Notch, ...	Bone in foot fractured by a fall of rock.
2,	66	Morgan Thomas, . . .	Runner, . . .	17	No, .	. . .	Jersey, ...	Ashley, ...	Arm broken by a car jumping off the track and running upon him.
4,	67	Frank Rowitskey, . . .	Laborer, . . .	20	No, .	. . .	Lance No. 11, ...	Plymouth, ...	Leg broken and otherwise injured by a fall of rock.
6,	68	Thomas McCue, ...	Miner, ...	45	Yes, .	7	Franklin, ...	Wilkes-Barre, ...	Some of his ribs fractured and right arm bruised by a fall of coal.
6,	69	Joseph Ruttofski, . . .	Laborer, . . .	32	Yes, .	5	Slope No. 3, ...	West Nanticoke, ...	Painfully bruised by being crushed by a car.
7,	70	John Valoy, ...	Miner, ...	33	No, .	. . .	Shaft No. 2, ...	Nanticoke, ...	Face and hands burned by an explosion of gas.
13,	71	John X. Jones, ...	Driver, ...	20	No, .	. . .	Gaylord, ...	Plymouth, ...	Squeezed between cars; painfully injured about his hips.
19,	72	John Pringle, ...	Plane-runner,	24	No, .	. . .	do.	do.	Two ribs fractured by a car jumping the track and running upon him.
20,	73	John Menshon, ...	Driver, ...	18	No, .	. . .	Alden, ...	Alden, ...	One leg broken and the other severely wounded by being run over by a car.
20,	74	Paul Lavinski, ...	Laborer, . . .	36	Yes, .	3	Lance No. 11, ...	Plymouth, ...	Leg broken near ankle by being caught between cars.
20,	75	John Murphy, ...	Driver, ...	19	No, .	. . .	Shaft No. 9, ...	Sugar Notch, ...	Leg broken at the ankle; caught between cars.
26,	76	Robert Prichard, . . .	Miner, ...	. . .	Yes, .	. .	Jersey No. 8, ...	Ashley, ...	Leg broken by coal rolling upon him.
28,	77	Thomas Costello, . . .	Slate-picker, .	14	No, .	. . .	Jersey Breaker, ...	do.	Foot badly lacerated; caught in the elevator gearing.

	29,	78	John Geake,	Miner,	27	No,	Shaft No. 2,	Plymouth,	Back and left leg bruised by a fall of rock.
May	3,	79	Edward Morris,	Driver,	17	No,	Slope No. 3,	West Nanticoke,	Caught between a car and mule; injured quite seriously.
	4,	80	William Knight,	Miner,	30	Yes, 2	Slope No. 4,	Nanticoke,	Painfully hurt about head and body by a fall of bone coal.
	6,	81	Andrew ——,	Laborer,	25	No,	Slope No. 2,	do.	Leg broken by a fall of fire-clay roof.
	7,	82	Herman Lutz,	Miner,	30	Yes, 4	Shaft No. 2,	Plymouth,	One rib fractured and bruised on back and on abdomen by a fall of rock.
	7,	83	Stephen Latze,	Ash-wheeler,	30	No,	Dorrance,	Wilkes-Barre,	Face scalded by steam arising from throwing water on hot ashes.
	7,	84	Christmas Noss,	Miner,	41	Yes, 4	Slope No. 3,	West Nanticoke,	Face and hands severely burned by an explosion of gas.
	10,	85	Jacob Brodolar,	Laborer,	22	No,	Shaft No. 1, Forge Vein,	Nanticoke,	Head and shoulder severely bruised by a fall of slate.
	11,	86	Michael Visnifski,	do.	26	Yes,	do. do.	do.	One rib fractured and back bruised by a fall of slate from roof.
	12,	87	Patrick Boyle,	do.	24	No,	West End,	Mocanaqua,	Injured quite painfully by a fall of rock.
	12,	88	Richard Roberts,	Miner,	25	No,	Empire,	Wilkes-Barre,	Leg broken by a fall of coal.
	23,	89	Evan J. Griffiths,	do.	35	No,	Newport Shaft,	Glen-Lyon,	Leg broken, skull fractured and severely bruised on body by falling eighty feet.
	26,	90	John Cosgrove,	do.	27	No,	Slope No. 1,	Nanticoke,	Face and hands severely burned. Gas exploded from his lamp.
	26,	91	Andrew Shlnefski,	Laborer,	25	No,	do.	do.	Face and arms slightly burned. Gas exploded from his lamp.
	26,	92	Hugh McFadden,	Driver,	16	No,	Shaft No. 2,	do.	Fell and broke his leg.
	26,	93	William Stonier,	Miner,	30	Yes, 2	Newport Tunnel,	Glen-Lyon,	Leg broken by a fall of coal.
	28,	94	William Chipanes,	No employee,	24	No,	Red Ash No. 2,	Wilkes-Barre township,	Leg broken below knee by a fall of coal.
	30,	95	James Monahan,	Driver,	15	No,	Shaft No. 5,	Plymouth,	Severely bruised by being caught under cars.
June	3,	96	John Frank,	Laborer,	21	No,	Shaft No. 1, Forge Vein,	Nanticoke,	Right leg fractured by a fall of slate.
	3,	97	Charles Buraski,	Miner,	45	Yes,	Tunnel No. 4,	do.	Shoulder joint dislocated; caught between a car and prop.
	4,	98	Owen J. Williams,	do.	30	Yes,	Empire,	Wilkes-Barre,	Leg crushed by a fall of coal, necessitating amputation.
	4,	99	Michael McGovern,	do.	25	No,	Shaft No. 1, Lee Vein,	Nanticoke,	Severely injured on his body by coal from a blast.
	6,	100	John Novice,	do.	45	Yes,	Empire,	Wilkes-Barre,	Leg broken by coal falling upon him.
	10,	101	Thomas Anthony,	do.	24	Yes,	Avondale,	Plymouth township,	Cut on head and shoulder by coal from a blast.
	13,	102	Henry Jones,	Laborer,	25	Yes, 3	Jersey No. 8,	Ashley,	Severely cut on head by a fall of rock.
	14,	103	Joseph Laskofski,	do.	32	Yes, 2	Alden,	Alden,	Hip and side cut and bruised by coal from a blast.
	14,	104	Richard White,	Miner,	43	Yes,	Shaft No. 1, Forge Vein,	Nanticoke,	Hip dislocated by a fall of slate.
	17,	105	Richard Jones,	Driver,	19	No,	Red Ash No. 1,	Wilkes-Barre township,	Arm fractured; caught between two cars
	23,	106	Barney Lisviski,	do.	17	No,	Slope No. 4,	Nanticoke,	Both severely burned and bruised by an explosion of gas.
	23,	107	Joseph Lisviski,	Door-tender,	15	No,			
	23,	108	Charles Smith,	Miner,	45	Yes, 4	Slope No. 3,	West Nanticoke,	Bruised and cut about head and face by a premature blast.
	30,	109	Frank Proshinski,	Driver,	24	No,	Dirt Plane,	Nanticoke,	Back severely hurt; run over by cars.
July	2,	110	Joseph Kashowa,	Laborer,	22	No,	Newport Shaft,	Glen-Lyon,,	Thigh broken by a fall of coal.
	2,	111	Mathew Farach,	do.	27	No,	Dodson,	Plymouth,	Leg broken by a car running back upon him.
	5,	112	Michael Flanery,	Headman,	27	No,	Stanton,	Wilkes-Barre,	Leg badly bruised by falling under a car.
	6,	113	William Simons,	Miner,	45	Yes,	Diamond,	do.	Faces and hands burned by an explosion of gas.
	6,	114	Darby Toole,	do.	40	Yes,	do.	do.	
	9,	115	Thomas Mella,	do.	30	Yes, 1	Shaft No. 1,	Edwardsville,	Painfully hurt by a fall of roof.

TABLE No. 5—Continued.

Date of accident.	No. of accident.	NAME OF PERSON.	Occupation.	Age.	Married.	No. of children.	Name of Colliery.	Location. Luzerne county.	Nature and Cause of Accident.
July 9,	116	William Medley, ...	Laborer, . . .	21	No, .	. . .	Newport Tunnel, ...	Glen-Lyon, ...	Both legs broken and severely cut on side by a fall of rock.
12,	117	Nathan D. Kusterbauer,	Miner, ...	28	No, .	. . .	Shaft No. 5, ...	Plymouth, ...	Face and hands severely burned by an explosion of powder.
12,	118	Joseph Coynyngham, .	Laborer, . . .	38	Yes, .	1	Franklin, ...	Wilkes-Barre, ...	Both were painfully hurt by a fall of rock.
12,	119	David Edwards, ...	Miner, ...	37	Yes, .	3			
13,	120	James Leonard, ...	do.	33	Yes, .	5	Conyngham, ...	do.	Drove a pick through his foot.
13,	121	William Loftus, ...	Driver, ...	19	No, .	. . .	Nottingham, ...	Plymouth, ...	Leg broken; caught between a car and a door.
14,	122	George Brown, ...	do.	16	No, .	. . .	Breaker No. 1, ...	Nanticoke, ...	Foot crushed by falling under a car.
14,	123	James Haslam, ...	Miner, ...	35	Yes, .	. . .	Diamond, ...	Wilkes-Barre, ...	Right arm broken by a fall of rock.
16,	124	Tudor Morgan, ...	Footman, . .	26	No, .	. . .	Hollenback Breaker, . .	do.	Leg broken by a runaway car, which threw him over a trestling.
18,	125	William Clark, ...	Fireman, . . .	20	No, .	. . .	Breaker No. 1, ...	Nanticoke, ...	Fore finger cut off by a circular saw.
24,	126	Ed. Soberts, ...	Miner, ...	37	Yes, .	6	No. 1 Deep Shaft, ...	Nanticoke, ...	The first two were severely burned and the other slightly by an explosion of gas; the gas fired from a shot which had been charged with dynamite and a small portion of powder; the latter was used against orders and resulted in the explosion.
24,	127	Anthony Broski, ...	Laborer, . . .	36	Yes, .	3			
24,	128	George Phillips, . . .	do. . . .	22	No, .	. .			
25,	129	John Morris, ...	Miner, ...	31	Yes, .	. . .	Red Ash No. 2, ...	Wilkes-Barre township,	Leg broken and badly cut on head, face and hands by a fall of coal.
25,	130	John McDonald, ...	Carpenter, . .	27	Yes, .	1	Conyngham, ...	Wilkes-Barre, ...	Cut his foot severely with an axe.
25,	131	Anning Fairchilds, . .	Brakeman, . .	. .	. . .	. . .	Breaker No. 2, ...	Nanticoke, ...	Badly bruised by a car running upon him.
27,	132	Enos Latinas, ...	Miner, ...	27	No, .	. . .	Newport Tunnel, ...	Glen-Lyon, ...	Leg broken; caught between lumps of coal.
28,	133	Jenkin Thomas, ...	Driver, ...	16	No, .	. . .	No. 1 Deep Shaft, ...	Nanticoke, ...	Arm severely cut by falling under cars.
29,	134	George Saylor, ...	Laborer, . . .	26	No, .	. . .	do. . . .	do.	Face and hands slightly burned by an explosion of gas.
Aug. 1,	135	William Luke, ...	Miner, ...	46	Yes, .	. . .	Shaft No. 1, Forge Vein,	do.	Jaw bone broken and severely cut on head by a fall of rock.
8,	136	Anthony Velancarage,	Miner, ...	41	Yes, .	1	Newport Tunnel, ...	Glen-Lyon, ...	Leg and arm fractured by a car running upon him.
9,	137	John Dunks, ...	Door-tender, .	18	No, .	. . .	Slope No. 2, ...	Nanticoke, ...	Hips severely squeezed between cars.
16,	138	Owen Woods, ...	do. . .	15	No, .	. . .	Red Ash No. 1, ...	Wilkes-Barre township,	Arm broken by a piece of timber striking him while it was being unloaded.
16,	139	Peter McLaughlin, . .	Driver, ...	18	No, .	. . .	Avondale, ...	Plymouth township, . . .	Hips painfully hurt; was squeezed between a car and rib.

17,	140	Martees Barash,	Miner,	40	Yes,	Shaft No. 2,	Edwardsville,	Leg broken by a blast.
22,	141	William Gulster,	Door-boy,	15	No,	do.	Nanticoke,	Leg broken by being caught between cars.
26,	142	George Ery,	Miner,	50	Yes, 3	Gaylord,	Plymouth,	Both arms broken, facial bones fractured and body injured by a premature blast.
27,	143	Llewelyn Tiner,	do.	33	Yes, 4	Shaft No. 9,	Sugar Notch,	Back painfully hurt by a fall of boney coal.
27,	144	William W. Jones,	Door-tender,	15	No,	Empire,	Wilkes-Barre,	Hip dislocated and otherwise bruised by being caught while coupling cars.
27,	145	Daniel D. Williams,	Miner,	30	No,	do.	do.	Ankle fractured by a fall of coal.
Sept. 2,	146	John Shultz,	do.	30	Yes,	Slope No. 1,	Nanticoke,	Chin bone fractured; was struck by the bar while he was using it to pry coal down.
7,	147	William Prichard,	Driver-boss,	35	Yes, 1	Parrish,	Plymouth,	Face and hands painfully burned by an explosion of gas.
7,	148	James McDonnell,	Driver,	17	No,	Shaft No. 9,	Sugar Notch,	Squeezed between car and rib; hips slightly injured.
10,	149	Michael Phillips,	Laborer,	30	No,	Nottingham,	Plymouth,	Thigh broken by a fall of coal.
12,	150	Daniel Delaney,	Miner,	40	Yes, 4	Baltimore Tunnel,	Wilkes-Barre,	Face and hands severely burned by an explosion of powder.
13,	151	John Vivian,	do.	32	Yes, 4	Slope No. 4,	Nanticoke,	Face, neck and hands severely burned by an explosion of gas.
13,	152	William Fodorski,	Laborer,	25	No,	Shaft No. 2,	do.	Hand crushed by a fall of rock so that it had to be amputated.
14,	153	William Ashton,	Driver,	16	No,	Shaft No. 1, Forge Vein,	do.	Found lying on the track unconscious; supposed to have been kicked by a mule.
14,	154	George Bartels,	Culm-loader,	45		Gaylord Breaker,	Plymouth,	Hand crushed between cars; two fingers had to be amputated.
17,	155	Martin O'Holleran,	Miner,	58	Wid., 4	Stanton,	Wilkes-Barre,	Arm and body painfully bruised by a premature explosion of blast.
17,	156	Frank Batlom,	Laborer,	38	Yes, 4	Shaft No. 9,	Sugar Notch,	Back severely bruised by a fall of boney coal.
22,	157	Adam Klurki,	Driver,	18	No,	Shaft No. 4.	Plymouth,	Kicked in face by a mule; had two severe cuts.
27,	158	Anthony Welsh,	Miner,	40	Yes, 2	Baltimore Slope,	Wilkes-Barre township,	Face and arms burned by an explosion of a cartridge of powder.
29,	159	Thomas W. Jamieson,	Door-tender,	15	No,	Stanton,	Wilkes-Barre,	Leg painfully bruised by falling under cars.
Oct. 1,	160	John W. Williams,	Miner,	35	Yes, 3	Shaft No. 9,	Sugar Notch,	Face and hands slightly burned by an explosion of gas.
5,	161	Mathias Krokoski,	do.	27	Yes,	Wanamie,	Wanamie,	Back severely hurt and cut between his legs by a fall of top coal.
6,	162	Robert Williams,	Laborer,	18	No,	do.	do.	Leg broken by a fall of slate.
6,	163	John Payton,	Miner,	42	Yes, 3	Nottingham,	Plymouth,	Left hip painfully injured by a fall of coal.
6,	164	Michael Gruddy,	Loader,	19	No,	Breaker No. 9,	Sugar Notch,	Right leg and both shoulder bones fractured by falling under a car.
7,	165	Thomas L. Jones,	Laborer,	24	Yes,	Slope No. 2,	Nanticoke,	Severely bruised about their arms, hands and bodies by coal thrown by a blast which fired while they were trying to extinguish burning gas.
7,	166	Edward Jones,	do.	28	Yes,			
7,	167	William Sterninski,	do.	26	No,	Newport Tunnel,	Glen-Lyon,	Leg broken by a small piece of slate falling on it.
10,	168	Oliver Glanville,	Miner,	55	Yes,	No. 1 Deep Shaft,	Nanticoke,	Two ribs broken by a fall of slate.
12,	169	Edmund Langan,	do.	45	Yes,	Empire,	Wilkes-Barre,	Leg broken and foot sorely sprained by a fall of boney coal.
20,	170	Thomas Price,	Laborer,	35	No,	Gaylord,	Plymouth,	Toes painfully hurt by a fall of coal.
22,	171	Alfred Swanson,	do.	27	No,	Shaft No. 9,	Sugar Notch,	Foot injured by a fall of clay; necessitating amputation.

TABLE No. 5.—Continued.

Date of accident.	No. of accident.	NAME OF PERSON.	Occupation.	Age	Married.	No. of children.	Name of Colliery.	Location Luzerne county.	Nature and Cause of Accident.
Oct. 24,	172	Patrick McVeigh, . . .	Miner, ...	45	Yes, .	. . .	Empire, ...	Wilkes Barre, ...	Hip disjointed and severely cut on head by a fall of coal.
24,	173	Lewis Morgan, ...	Mine foreman, . . .		Yes, .	. . .	Slope No. 2, ...	Nanticoke, ...	Face and hands burned by an explosion of gas.
26,	174	James Grant, ...	Miner, ...	26	Yes,	4	No. 1 Deep Shaft, ...	do.	Leg broken and severely bruised on body by a fall of rock.
28,	175	William Kosloski, . . .	do. . . .	35	Yes, .	1	Hillman Vein, ...	Wilkes-Barre, ...	Left arm broken and ribs injured by a fall of fire-clay from roof.
31,	176	A. G. Rood, ...	do, ...	38	Yes, .	3	West End, ...	Mocanaqua, ...	Slightly injured by a bowlder.
31,	177	David T. Evans, ...	do. . . .	45	Yes, .	. . .	Empire, ...	Wilkes-Barre, ...	Knee badly injured by a fall of coal.
Nov. 2,	178	William Millington, .	Laborer, . . .	20	No, .	. . .	Slope No. 4, ...	Nanticoke, ...	Arm severely bruised by being caught between a car and prop.
3,	179	James Higgins, ...	Miner, ...	45	Yes, .	10	Stanton, ...	Wilkes-Barre, ...	Hips painfully bruised and one finger broken by coal rolling and crushing him against a car.
3,	180	Richard King, ...	Driver, ...	17	No, .	. . .	Parrish, ...	Plymouth, ...	Toes crushed under a car; necessitating amputation.
7,	181	Hugh O'Donnell, . . .	Miner, ...	26	Yes, .	2	Conyngham, ...	Wilkes-Barre, ...	Cut and bruised on head and shoulder by coal falling from side of pillar.
9,	182	Fred Meyers, ...	do. . . .	26	Yes, .	2	Red Ash No. 1, ...	Wilkes-Barre township,	Painfully hurt by a fall of rock.
9,	183	Joe Bushufski, ...	Laborer, . . .	30	No, .	. .	Reynolds, ...	Plymouth, ...	Faces and hands burned by an explosion of powder. While putting cotton in their lamps over an open powder keg, a spark flew in and fired it.
9,	184	Joe Benzanski, ...	do. . . .	28	No, .	. .			
10,	185	Owen Pritchard, . . .	do. . . .	26	No, .	. . .	Nottingham, ...	do.	Pick slipped while he was splitting a lump of coal, and entered his leg.
10,	186	Michael Discue, ...	Miner, ...	40	Yes, .	3	Franklin, ...	Wilkes-Barre, ...	Face and hands burned slightly by an explosion of a cartridge of powder.
11,	187	Lewis B. Jones, ...	do. . . .	33	No, .	. .	Red Ash No. 2, ...	Wilkes-Barre township,	Back severely hurt by a fall of rock coming from beneath the top coal.
11,	188	John Dowe, ...	Fire boss, . . .	32	Yes, .	2	Hillman Vein, ...	Wilkes-Barre, ...	Face and hands burned by an explosion of gas.
15,	189	Patrick Ruane, ...	Laborer, . . .	25	No, .	. . .	Jersey, ...	Ashley, ...	Face and hands burned by an explosion of gas.
16,	190	Alfred Lukey, ...	do. . . .	21	No, .	. . .	Dodson, ...	Plymouth, ...	Some of his ribs and shoulder-blade fractured by a fall of roof.

	16,	191	Barney Smith,	Miner,	22	No,	Warrior Run,	Warrior Run,	Arm broken by a piece of top coal falling and striking him.
	16,	192	George Soffa,	Laborer,	25	Yes,	Red Ash No. 2,	Wilkes-Barre township,	Face bruised and one eye destroyed by the unexpected explosion of a blast.
	17,	193	William G. Evans,	Driver,	15	No,	No. 1 Deep Shaft,	Nanticoke,	Severe flesh-wound on leg; fell under a car while riding on it.
	17,	194	Charles Tolley,	Laborer,	25	No,	Boston Breaker,	Plymouth township,	Leg broken at ankle; caught under a car.
	21,	195	Daniel Grumm,	Miner,	55		Newport Slope,	Glen-Lyon,	Two ribs fractured by falling down the manway.
	25,	196	Samuel Venetski,	Laborer,	21	No,	Alden,	Alden,	Both legs broken by a fall of top coal. One had to be amputated.
	26,	197	Barney Deerey,	Miner,	62	No,	Avondale,	Plymouth township,	Face and arm slightly bruised and cut by a blast.
	26,	198	Edward Collet,	do.	50	Yes, 4	Reynolds,	Plymouth,	Back painfully injured by a fall of coal.
	28,	199	Lawrence Calpin,	do.	40	Yes, 4	Maffet,	Sugar Notch,	Spine fractured. Injury very serious. Caused by a fall of roof.
	30,	200	James Hiscox,	do.	32	Yes, 3			
	30,	201	David S. Evans,	do.	26	Yes,	Slope No. 3,	West Nanticoke,	Faces and hands painfully burned by an explosion of gas.
	30,	202	Albert Ludka,	Laborer,	34	Yes, 2			
	30,	203	Andrew Golgesky,	do.	27	Yes, 3			
Dec.	1,	204	Thomas Mullen,	Miner,	40	Yes, 4	Baltimore Tunnel,	Wilkes Barre,	Back and ankle bruised and cuts on head by a fall of coal.
	3,	205	Samuel Titus,	Laborer,	42	Yes, 2	South Wilkes-Barre,	do.	Cut on head by a stone falling from the bucket.
	5,	206	James McGartick,	Runner,	21	No,	Franklin,	do.	Head severely crushed between cars.
	6,	207	Ziba Garrison,	Miner,	36	Yes, 2	Slope No. 3,	West Nanticoke,	Body painfully bruised by a premature blast bringing top coal upon him.
	6,	208	Thomas H. Jones,	Runner,	18	No,	Shaft No. 1, Lee Vein,	Nanticoke,	Arm crushed by falling under cars, necessitating amputation.
	6,	209	Patrick Carr,	Miner,	35	Yes, 3	Hillman Vein,	Wilkes Barre,	Leg fractured by falling coal.
	7,	210	Richard Martin,	Driver,	17	No,	Parrish,	Plymouth,	Arm broken by a kick from a mule.
	8,	211	William Kovoloski,	Car coupler,	15	No,	Wanamie,	Newport township,	Knee-cap fractured by falling on rail.
	8,	212	Joseph N. Risers,	Laborer,	30	No,	Shaft No. 1, Forge Vein,	Nanticoke,	Leg and three ribs fractured by a fall of slate.
	8,	213	William H. Williams,	do.	62	Yes, 2	Dodson,	Plymouth,	Arm broken and body painfully bruised; crushed between car and cage.
	10,	214	Henry W. Brownbridge,	Miner,	32	Yes, 2	Conyngham,	Wilkes-Barre,	Hand severely cut by a small piece of roof falling on it.
	13,	215	John Rordat,	Laborer,	28	No,	Shaft No. 4,	Edwardsville,	Leg broken by a fall of top coal.
	13,	216	George R. Turner,	Miner,	22	Yes, 1	Alden,	Alden, Newport twp.,	Back painfully bruised by a fall of rock.
	14,	217	John Tulpin,	Laborer,	35	Yes,	Breaker No. 5,	Nanticoke,	Hip fractured by being struck by a piece of timber while unloading railroad cars.
	15,	218	William Card,	Mason,	63	Yes,	Shaft No. 1, Forge Vein,	do.	Both severely burned by an explosion of gas.
	15,	219	John Olzinski,	Laborer,	30	No,			
	15,	220	Valentine Zemneski,	do.	22	No,	Slope No. 2,	do.	Leg broken by a fall of fireclay.
	16,	221	John Flannigan,	Miner,	45	Yes, 6	Nottingham,	Plymouth,	Ankle bone fractured by a fall of coal.
	16,	222	Taomas Thomas,	do.	44	Yes, 3	Shaft No. 2,	Edwardsville,	Leg broken and cut on head by a fall of rock.
	20,	223	Evan R. Hughes,	Laborer,	35	Yes, 6	Stanton,	Wilkes-Barre,	Bruised about head and body by a premature blast.
	20,	224	John Lord,	Miner,	35	Yes, 5	Jersey No. 8,	Ashley,	Three ribs fractured and cut on face by a fall of rock.
	21,	225	Owen Cronan,	Laborer,	24	No,	Conyngham,	Wilkes-Barre,	Severely cut on shoulder by a piece of coal falling from rib.

TABLE No. 5—Continued.

Date of accident.	No. of accident.	NAME OF PERSON.	Occupation.	Age.	Married.	No. of children.	Name of Colliery.	Location. Luzerne county.	Nature and Cause of Accident.
Dec. 21,	226	Thomas Rowlands, . .	Laborer, . . .	22	No, .	. .	Nottingham, ...	Plymouth, ...	Faces and hands burned by an explosion of gas.
21,	227	James Davies, ...	do. . . .	19	No, .	. .			
22,	228	Hen Commick, ...	Miner, ...	27	Yes, .	2	Maffet, ...	Sugar Notch, ...	Leg broken by falling coal rolling upon him.
24,	229	Arthur Lewis, ...	Driver, ...	16	No, .	. . .	Red Ash No. 2, ...	Wilkes-Barre township,	Kicked on the abdomen by a mule.
27,	230	Hugh Roberts, ...	Laborer, . . .	45	Yes, .	. . .	Empire, ...	Wilkes Barre, ...	One leg fractured and the other severely hurt by a car crushing them.
28,	231	*John L. Jones, ...	Miner, ...	36	Yes, .	3	Empire, ...	do.	The three were painfully burned by an explosion of gas.
28,	232	David H. Jones, ...	do. . . .	45	Yes, .	3			
28,	233	Symon Adamkuck, . .	Laborer, . . .	25	No, .	. .			

* John L. Jones died January 5, 1888.

Total number, two hundred and thirty-two (232). In addition to the above list seventy-one (71) slight injuries were reported, adding which would make a total of three hundred and three (303), but these seventy one were of a very slight character, causing the victims only a slight loss.

RECAPITULATION.

Occupations of the Injured:

Miners,	97
Laborers,	70
Drivers and runners,	36
Doortenders,	9
All other classes,	20
Total,	232

Nationality of the Injured:

Welsh,	61
Irish,	50
Americans,	23
English,	27
Polish,	43
Hungarian,	10
German,	17
Swede,	1
Total,	232

Causes of Injuries:

By explosions of gas,	41
By falls of roof and coal,	89
By falling down shafts,	0
Injured by mine cars,	37
By explosions of powder and blasts,	23
By miscellaneous causes inside of mines,	22
By miscellaneous causes outside of mines,	20
Total,	232

FOURTH ANTHRACITE DISTRICT.

Hon. THOMAS J. STEWART,

Secretary of Internal Affairs:

SIR: I have the honor to submit my seventh annual report:

This district produced 3,961,594 tons of coal, which is a decrease, in comparison with the year 1886, of 1,371,924 tons. The cause of this great decrease was the general strike among the miners, which closed most of the mines of the district on the 10th day of September.

The number of fatal accidents was 15, leaving 7 widows and 16 orphans, a decrease of 20 fatal accidents, 10 widows and 25 orphans. The number of non-fatal accidents was 101, also a decrease of 24 as compared with the year 1886.

The amount of coal mined per life lost was 264,106 tons, an increase of 111,720 tons over 1886, which is a much larger quantity than has ever been mined per life lost in this district before.

The average number of persons employed was 937, also an increase over 1886 of 533 persons.

I regret that even 15 persons lost their lives, when I know the number should be less if even ordinary care had been taken by some of the victims.

The report also contains the usual tables, which I hope may prove interesting.

I have made an effort to be brief, so as to conform to the suggestions made by the Chief of the Bureau of Statistics.

Yours very respectfully,

JAMES E. RODERICK,
Inspector of Mines.

HAZLETON, *March 1, 1888.*

The Total Amount of Coal Produced During the Year 1887.

A. Pardee & Co.,	377,598
Coxe Bros. & Co.,	1,005,221
Lehigh Coal and Navigation Company,	463,780
Linderman, Skeer & Co.,	227,498
G. B. Markle & Co.,	358,907
Upper Lehigh Coal Company,	288,618
J. C. Haydon & Co.,	188,935
Pardee, Sons & Co.,	153,913
G. H. Myers & Co.,	127,563
Miscellaneous Companies,	761,561
	3,961,594

Number of Employees, with the Average Number of Tons Mined per Employee.

	Number of persons employed.	Average number of tons mined per employé.
A. Pardee & Co.,	1,553	243+
Coxe Bros. & Co.,	3,318	302+
Lehigh Coal and Navigation Company,	1,715	270+
Linderman, Skeer & Co.,	1,014	224+
G. B. Markle & Co.,	972	369+
Upper Lehigh Coal Company,	649	444+
J. C. Haydon & Co.,	501	377+
Pardee Sons & Co.,	565	272+
G. H. Myers & Co.,	442	287+
Miscellaneous companies,	2,827	269+
Men at stripping and other general work,	540	. . . .
Total and average,	14,096	292+

Number of Fatal Accidents and Amount of Coal Produced per Life Lost.

	Number of lives lost.	Coal mined per life lost—tons.
A. Pardee & Co.,	2	188,799
Coxe Bros. & Co.,	6	167,532
Lehigh Coal and Navigation Company,	2	231,890
Linderman, Skeer & Co.,	. . .	No lives lost.
G. B. Markle & Co.,	2	179,464
Upper Lehigh Coal Company,	. . .	No lives lost.
J. C. Haydon & Co.,	. . .	No lives lost.
Pardee Sons & Co.,	. . .	No lives lost.
G. H. Myers & Co.,	. . .	No lives lost.
Miscellaneous companies,	3	256,520
Totals,	15	264,106

Table of Comparison Showing the Different Causes of Fatal Accidents in the Fourth District for the Years 1881, 1882, 1883, 1884, 1885, 1886 and 1887.

	YEARS.						
	1881.	1882.	1883.	1884.	1885.	1886.	1887.
Explosion of carbureted hydrogen gas,	3	1	. . .	. . .	1	1	1
By falls of coal, roof and sides,	24	24	18	10	19	13	6
By cars, inside and outside,	11	8	11	17	8	5	3
By premature blasts,	1	1	1	3	3	2	2
By machinery, inside and outside,	4	1	2	2	3	1	1
By boiler explosions,	. . .	. . .	. . .	. . .	3	1	1
Miscellaneous, inside and outside,	4	5	6	8	5	12	1
Totals,	47	40	38	40	42	35	15

TABLE A—Exhibits the Number of Deaths in Each Class of Employees Inside and Outside of the Mines, and the Causes Thereof, for the Year 1887.

CAUSES—INSIDE OF MINES.	Miners.	Miners' laborers.	Company laborers.	Drivers.	Door tenders.	Total.
By falls of all kinds,	3	1	1	. . .	1	6
By mine cars,	. . .	. . .	1	1	. . .	2
By premature blasts,	2	1	. . .	. . .	. . .	3
By explosion of gas,	1	. . .	. . .	. . .	. . .	1
Total inside,	6	2	2	1	1	12

CAUSES—OUTSIDE.	Firemen.	Slate pickers.	Total.
. . . . .	. .	1	1
By machinery,	. . .	. . .	1
By boiler explosion,	1	. . .	. . .
By cars,	. . .	1	1
Total, outside,	1	2	3

TABLE B—Gives the Total Number of Each Class of Employees, the Number of Deaths in Each Class, and the Ratio of Each Class Employed per Life Lost Inside and Outside the Mines During the Year 1887.

CLASSES—INSIDE OF MINES.	Number of each class employed.	Number of deaths in each class.	Ratio employed per death.
Miners,	3,125	6	521
Miners' laborers,	1,628	2	814
Company laborers,	1,496	2	748
Drivers and runners,	636	1	636
Door tenders,	321	1	321
Other employés,	58	. . .	. . . .
Totals,	7,264	12	605
CLASSES—OUTSIDE OF MINES.			
Slate pickers,	2,934	2	1,467
Firemen and engineers,	542	1	542
Other employés,	2,906	. . .	. . . .
	6,832	3	2,277

Classification of Fatal and Non-fatal Accidents.

CAUSE OF ACCIDENT.	Killed.	Injured.	Total.
Explosion of carbureted hydrogen gas,	1	7	8
By falls of coal, roofs and sides,	6	37	43
By cars, inside and outside,	3	21	24
By premature blasts and powder explosions,	2	18	20
By machinery, inside and outside,	1	2	3
By boiler explosion,	1	1	2
Miscellaneous, inside and outside,	1	15	16
	15	101	116

Nationality of Persons Killed and Injured.

	Americans.	Irish.	English.	Welsh.	Scotch.	Hungarians.	Germans.	Italians.	Austrians.	Totals.
Killed or fatally injured,	2	4	. .	1	1	4	2	1	. .	15
Injured,	17	24	10	6	1	25	11	2	5	101
Total,	19	28	10	7	2	29	13	3	5	116

Table of Comparison Showing the Number of Fatal Accidents per Thousand Persons Employed in and about the Mines of the Fourth District for the Years 1881, 1882, 1883, 1884, 1885, 1886 and 1887.

YEARS.	Number of employés.	Number of deaths.	Ratio employed per death.	Number of deaths per thousand employed.
1881,	11,386	47	242.25	4,127
1882,	12,298	40	307.45	3,252
1883,	13,598	38	357.84	2,794
1884,	14,299	40	357.47	2,797
1885,	14,224	42	338.66	2,952
1886,	14,140	35	404.00	2,475
1887,	14,096	15	939.73	1,064
Averages,	13,434	36.71	421.05	2,779

Table of Comparison Giving the Nature and the Number of Non-fatal Accidents for the years 1881, 1882, 1883, 1884, 1885, 1886 and 1887.

Years.	Nature of Accidents.								
	Accidents, but no bones fractured.	Collar bone fractured.	Jaw bone fractured.	Ribs fractured.	Legs fractured.	Feet fractured.	Arms fractured.	Hands fractured.	Total.
1881,	57	5	. . .	1	17	. . .	8	. . .	88
1882,	97	2	1	. . .	19	4	7	6	136
1883,	99	7	1	. . .	26	4	8	8	153
1884,	131	3	1	9	33	9	14	7	217
1885,	76	8	4	3	40	7	16	4	158
1886,	66	6	. . .	2	27	4	14	5	124
1887,	52	2	2	1	32	1	6	5	101
Totals for seven years,	578	33	9	16	194	29	73	45	977

Remarks on Accidents.

The number of fatal accidents has been greatly decreased in this district the last year. Indeed it has been the banner year for this district since the Mine Law of 1870 came into effect.

More coal has been produced, per life lost than in any previous year in this, or in any of the Anthracite districts. I cannot explain the causes for this great increase in production of coal per life lost, but I think that a large share of it can be attributed to the successful operation of the Mine Law of 1885.

Yet the number of lives lost are greater than should be, as several lives were sacrificed through the neglect of proper precaution on the part of the victims, especially, those caused by cars and blasts.

The most noteworthy fact to me is the large number of persons that were injured by blasts, by powder and dynamite. I attribute these accidents to the carelessness of the victims themselves, caused possibly by their ignorance of the properties of the explosives they were handling.

By referring to Table 5, it can be seen that several were injured by driving dynamite into the holes.

These accidents are beyond the control of inspector or the mine foreman, and the remedy must come from the men themselves.

Arbitration.

During the month of January, 1887, a gradual squeeze was observed in Yorktown No. 5, which made me rather uneasy about the safety of some of the men in some parts of the mine, consequently I went through this mine several times during the last week of January. In my examination I found the sqeeze coming on towards the slope.

On the fourth day of February, I notified the mine foreman that no person should be allowed to ride up or down through said slope; neither should he allow the footman or even go himself to put a car on the track in case a car jumped off. By this order I meant to stop the slope as I knew they would have some cars off perhaps that same day. On the fifth I went down the slope again and found that a car had jumped the track the afternoon of the fourth, and that the foreman and footman went on the slope to put it on. Then I finally ordered the place stopped, giving the superintendent my reason for thinking the place unsafe.

Mr. John did not share my fears and was unwilling to stop, but asked for arbitration, which under the law I could not refuse. I consented to arbitrate the matter and named one arbitrator, while John named the other. The two arbitrators met the same afternoon and named the third. The three arbitrators went down through the slope and made a thorough examination of roof, sides, roads and everything in connection with it.

Their report is hereto annexed.

In the matter of arbitration to decide the question of the safety of Yorktown Slope No. 5, the following persons were selected, viz: L. J. Thomas, general inside foreman of the Beaver Brook Colleries, arbitrator appointed by the mine inspector; Samuel Williams, inside foreman, Jamesville No. 4, arbitrator appointed by Mr. John, for G. H. Myers & Co.; and Elmer H. Lawall, civil and mining engineer, the arbitrator selected by the other two.

After duly examining the aforesaid slope and inside workings reached by the same on Saturday evening, February 5, 1887, the arbitrators abjourned into Mr. Lawall's office at Audenried, to consider the testimony as obtained by them.

They unanimously decided that the slope in its present condition is unsafe and unfit for operation for the following reasons:

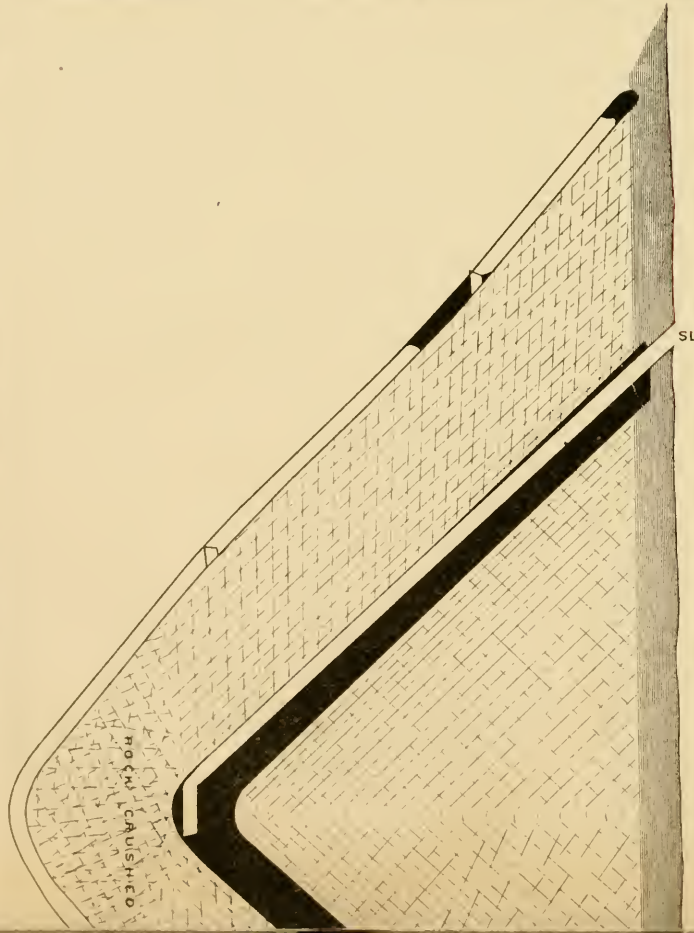
1. An examination of the coal on the sides of the slope show that the vein is not firm and the numerous slips noticed, indicate a probable squeeze in the near future.

2. The top rock shows numerous cracks, showing that the load is not properly supported, and furthermore we found that there is no timbering in the greater part of the slope.

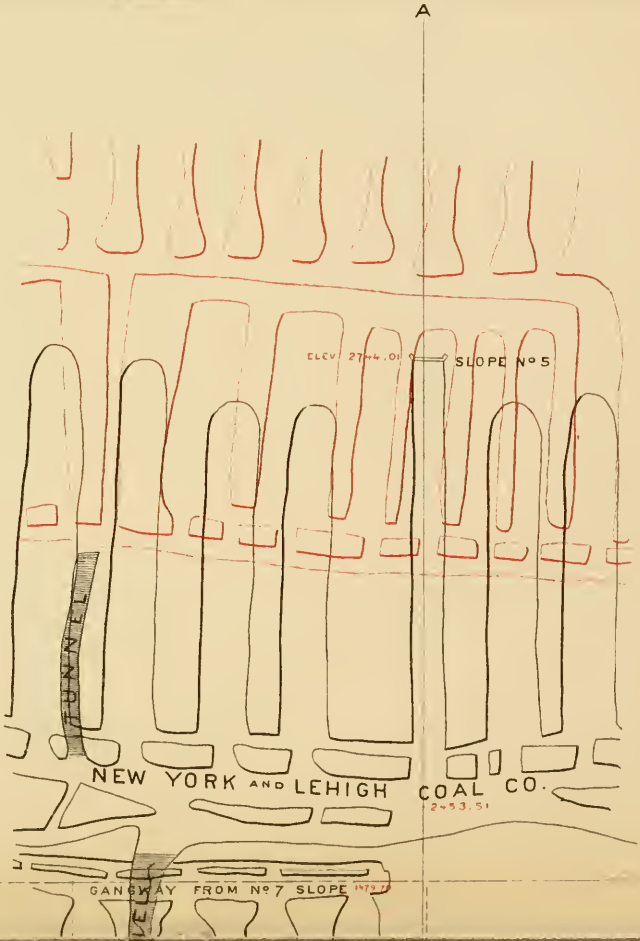
3. From information received from inside employés, we believe that the slope pillars are entirely too small, the condition of the workings not allowing us to examine the same.

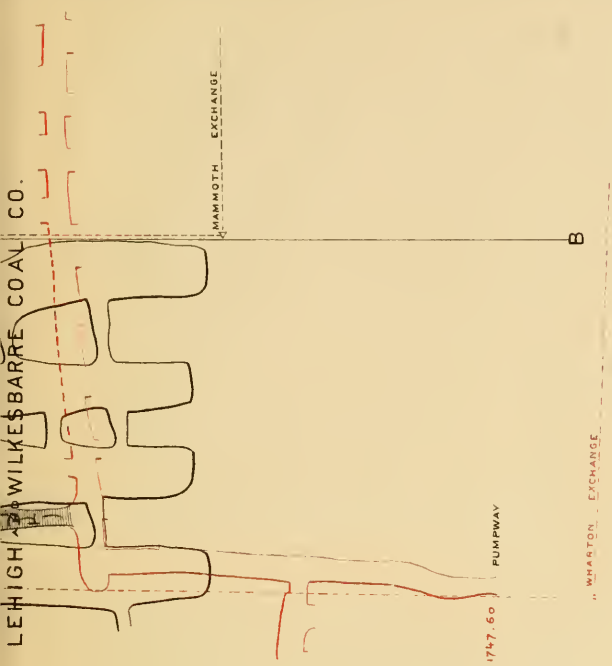
4. The slope road is not in good condition, as we find that cars frequently leave the track, and thus endangering the lives of the men whose duty it is to replace them on the road.

In our opinion we do not consider that there is sufficient coal remaining to warrant the timbering necessary; and futhermore, do not

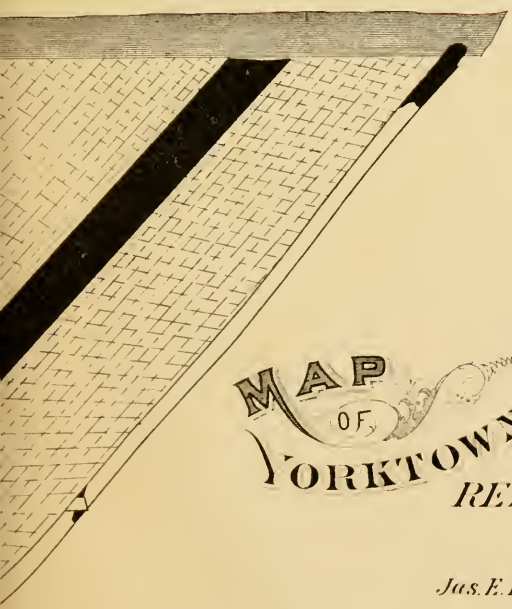


Section on line A.B.





rse, S 74.5 E



MAP OF YORKTOWN No. 5 SLOPE.

TO ACCOMPANY

REPORT OF ARBITRATORS.

Elmer H. Lawall, Engr.

Jas. E. Roderick, Inspector

Scale

10 50 100 200 MILES

consider that the ordinary method of timbering will properly secure the slope.

As the operators have gone to considerable expense in re-opening the inside workings, which are as safe as such workings generally are, we would suggest that the slope road should be properly fixed and guarded by guide rails; which would eliminate the necessity of having men work on the slope, and furthermore we recommend that the hoisting chain now in use be replaced by a rope, as the breaking of said chain, which is not uncommon, is liable to destroy the present protection now had by timbering.

We also recommend that the propping at the foot of the slope, for the protection of the footman, as explained by us to the mine foreman be immediately attended to.

We are of the opinion that if the above recommendations are carried out, the coal now remaining can be mined; provided, however, that the slope pillars are not further disturbed.

We are however unanimously of the opinion, that for real safety, a new slope is necessary, and would suggest that the operators should determine the feasibility of such an outlet in the Wharton Vein, which in this case is conveniently connected with Slope No. 5, Mammoth Vein workings.

D. J. Thomas, arbitrator, appointed by the mine inspector; Samuel Williams, arbitrator, appointed by George John; and Elmer H. Lawall, arbitrator, appointed by the other two.

TABLE OF COMPARISON showing the yearly and total production of each company in the Fourth Anthracite District for the last seven years, the number of lives lost, and the average amount of coal produced by each company per life lost.

NAME OF COMPANIES.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	Total production.	Number lives lost.	Tons produced per life lost.
A. Pardee & Co., Hazleton,	686,462	673 627	659,151	543,164	530,806	543,387	377,598	4 008,265	30	133 609
Coxe Bros & Co., Drifton,	534,476	547,529	643,034	805,538	893 487	1,226 685	1,005,221	5,656,258	47	120,346
Lehigh Coal and Navigation Co., Lansford,	414 398	419,189	474.175	533.956	598,905	631 459	463 780	2 535.862	27	130,958
Linderman, Skeer & Co., Stockton,	324.250	429,577	518,308	426.522	440 552	396,641	227,498	2,764,893	25	110 596
G. B. Markle & Co., Jeddo,	413 820	472.655	499,068	358.197	397.553	501,141	358 907	3,001,321	19	157.964
Upper Lehigh Coal Company, Upper Lehigh,	387.842	365.180	390.069	360,166	373,491	385 079	288,618	2,550.345	12	212.528
J. Leisenring & Co., Eckley,	254 551	337,427	399.433	355,141	409,937	Lease exp.		1,756.489	14	125,463
J. C. Haydon & Co., Jeanesville,	215 000	242 379	248.904	215.241	245.126	252.042	188 935	1,607.733	7	229 676
Pardee Bros. & Co., Lattimer,	254,754	239 032	212 151	235 785	216,281	199 281	153,913	1,511.197	6	251,866
Ebervale Coal Company, Ebervale,	198,825	257,383	226,365	173.907	150,559	Idle.	Idle.	1 107,039	10	100.704
M. S. Kemmerer & Co., Sandy Run,	136 085	181,759	188,418	147,147	158 720	148,344	118 561	1,104,161	3	368 053
Pardee Sons & Co., Mt. Pleasant,	146 691	143,373	190 837	139,139	146 229	149,136	104 150	1,109 550	10	101,955
G. H. Myers & Co., Yorktown,	178 679	185.674	198,176	191,882	189,193	178,317	127.563	1,248,684	14	89.192
Wm. T. Carter & Co., Coleraine,	38,137	153 360	169,469	160,950	128 552	94,846	77.031	931,395	5	186,279
Lehigh and Wilkes-Barre Coal Co., Tresckow,	116 561	135,609	148,402	132.784	107 657	71.025	71 360	783,394	11	71 218
C. M. Dodson & Co., Beaver Brook,	98,026	99,369	82.250	138 162	159,115	178.011	126 540	881,473	1	881,473
C. Pardee & Co., Hollywood,	125.141	125,841	149,437	100,410	94.249	119,393	93 528	807,997	7	105.428
Stout Coal Company, Milnesville,	142 405	120,793	93 582	78 902	101,951	109 115	75 043	722.847	2	361.423
Kemmerer & Co., Harleigh,	94,755	88,667	66 801	96.302	88,603	6,466	Idle.	439 594	5	87.919
M. S. Kemmerer & Co., Pond Creek,	32,882	Idle.	39,486	50,750	45,494	49,465	34.294	252,311	1	252,311
J. S. Wentz & Co., Black Ridge,	21,754	63,694	4,072	Idle.	10 966	56,722	31.879	189,087	No deaths.	
J. S. Wentz & Co., Hazle Brook,				20 295	50,081	38,965	37,185	146,526	2	73,263
Buck Mountain Coal Company,	120,719	108,906	75,152	Abandoned.				304,771	No deaths.	
Total yearly production,	5,037,948	5,360,497	5,666,767	5,274,227	5,535,543	5,333,518	3,961.594	36 170,094	258	140,194
Average number days worked each year,	225	221	221.9	181.5	208.6	221	155			

TABLE No. 1—Showing location of Collieries in the Fourth Anthracite District.

NAME OF COLLIERY.	Name of Operator.	Location.	Name of Superintendent.	Post-Office Address.
Hazleton Mine,	A. Pardee & Co.,	Hazleton, Luzerne county,	Frank Pardee,	Hazleton, Pa.
Laurel Hill,	do.	do. do.	do.	do.
East Crystal Ridge,	do.	do. do.	do.	do.
Cranberry,	do.	do. do.	do.	do.
Number Three,	do.	do. do.	do.	do.
Number Six,	do.	do. do.	do.	do.
South Sugar Loaf,	do.	do. do.	do.	do.
Cross Creek No. 1,	Coxe Bros. & Co.,	Drifton, Luzerne county,	Hon. E. B. Coxe,	Drifton, Pa.
Cross Creek No. 2,	do.	do. do.	do.	do.
Eckley No. 5,	do.	Eckley, Luzerne county,	do.	do.
Eckley No. 10,	do.	do. do.	do.	do.
Tomhicken,	do.	Tomhicken, Luzerne county,	do.	do.
Derringer,	do.	Derringer, Luzerne county,	do.	do.
Gowen,	do.	Gowen, Luzerne county,	do.	do.
Beaver Meadow,	do.	Beaver Meadow, Carbon county,	do.	do.
Stockton,	do.	Stockton, Luzerne county,	do.	do.
No. 3,	Lehigh Coal and Navigation Company,	Nesquehoning, Carbon county,	Wm. D. Zechner,	Lansford, Pa.
No. 4,	do. do. do.	Lansford, Carbon county,	do.	do.
No. 5,	do. do. do.	do. do.	do.	do.
No. 6,	do. do. do.	do. do.	do.	do.
No. 9,	do. do. do.	do. do.	do.	do.
East Sugar Loaf No. 1,	Linderman, Skeer & Co.,	Stockton, Luzerne county,	S. D. Kynor,	Stockton, Pa.
East Sugar Loaf No. 2,	do. do.	do. do.	do.	do.
East Sugar Loaf No. 5,	do. do.	do. do.	do.	do.
Humboldt,	do. do.	Humboldt, Luzerne county,	do.	do.
Oakdale No. 1,	G. B. Markle & Co.,	Oakdale, Luzerne county,	John Markle,	Jeddo, Pa.
Oakdale No. 2,	do.	do. do.	do.	do.
Highland No. 1.	do.	Highland, Luzerne county,	do.	do.
Highland No. 2,	do.	do. do.	do.	do.
No. 2,	Upper Lehigh Coal Company,	Upper Lehigh, Luzerne county,	Albert Leisenring,	Upper Lehigh, Pa.
No. 4,	do. do.	do. do.	do.	do.
No. 5,	do. do.	do. do.	do.	do.
No. 6,	do. do.	do. do.	do.	do.
No. 1,	Pardee Bros. & Co.,	Lattimer, Luzerne county,	Calvin Pardee,	Hazleton, Pa.
No. 2,	do.	do. do.	do.	do.
No. 3,	do.	do. do.	do.	do.
Spring Mountain No. 1,	J. C. Haydon & Co.,	Jeanesville, Luzerne county,	J. C. Haydon,	Jeanesville, Pa.
Spring Mountain No. 4,	do.	do. do.	do.	do.
Spring Mountain No. 7,	do.	do. do.	do.	do.
No. 5,	G. N. Myers & Co.,	Yorktown, Carbon county,	George Sohn,	Audenried, Pa.
No 6,	do.	do. do.	do.	do.
Sandy Run,	M. S. Kemmerer & Co.,	Sandy Run, Luzerne county,	Walter Leisenring,	Sandy Run, Pa.
Pond Creek,	do. do.	Pond Creek, Luzerne county,	do.	do.
Mount Pleasant,	Pardee Sons & Co.,	Mount Pleasant, Luzerne county,	Calvin Pardee,	Hazleton, Pa.
Beaver Brook,	C. M. Dodson & Co.,	Beaver Brook, Luzerne county,	E. L. Bullock,	Audenried, Pa.

TABLE No. 1—Continued.

NAME OF COLLIERY.	Name of Operator.	Location.	Name of Superintendent.	Post-Office Address.
Tresckow,	Lehigh and Wilkes-Barre Coal Co.,	Tresckow, Carbon county,	Jed. I. Hollenback,	Audenried, Pa.
Coleraine,	Wm. T. Carter & Co.,	Coleraine, Carbon county,	John Wear,	Beaver Meadow, Pa.
Hollywood,	C. Pardee & Co.,	Hollywood, Luzerne county,	Calvin Pardee,	Hazleton, Pa.
Milnesville,	Stout Coal Company,	Milnesville, Luzerne county,	John A. Mason,	Milnesville, Pa.
Hazle Brook,	J. S. Wentz & Co.,	Hazle Brook, Luzerne county,	J. S. Wentz,	Mauch Chunk, Pa.
Black Ridge,	do.	Black Ridge, Luzerne county,	do.	do.
Harleigh,	M. S. Kemmerer & Co.,	Harleigh, Luzerne county,	Not in operation,	Harleigh, Pa.
Ebervale,		Ebervale, Luzerne county,	do. do.	Ebervale, Pa.

TABLE No. 2.—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employés, number of persons killed and injured, number of kegs of powder used, &c., in the Fourth Anthracite District for the year ending December 31, 1887.

Names of Collieries.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs of powder used.	Number steam boilers.	Number horses and mules	Number mine locomotives.
A. Pardee & Co.											
Hazleton mine,	Hazleton,	93,241	87,976.09	209.7	319	. . .	3	1,228	36	44	1
Laurel Hill,	do.	55,794	48,881.17	144.7	238	. . .	1	795	48	22	1
Hazleton No. 3,	do.	45,811	39,877.06	140.1	209	1	1	938	30	26	. . .
Do. No. 6,	do.	51,515	50,168.05	154.6	191	. . .	. . .	883	10	28	. . .
South Sugar Loaf,	do.	36,686	33,445.10	144.5	133	1	4	901	24	20	. . .
Cranberry,	do.	94,548	85,301.12	154.11	454	. . .	3	1,957	54	54	3
Men at general work,	do.	. . . . .	. . . . .	. . .	10	. . .	. . .	. . . .	. . .	. . .	. . .
		377,598	345,650.19	158	1,553	2	12	6,702	204	194	5
Coxe Bros. & Co.											
Drifton No. 1, Do. No. 2,	Drifton,	345,329	308,705.17	207.5	1,051	2	7	8,073	47	116	4
Eckley No. 5,	Eckley,	89,155	73,874.06	188	245	2	2	1,439	15	30	. . .
Do. No. 10,	do.	84,856	74,031.08	249	312	. . .	3	1,889	19	33	1
Stockton,	Stockton,	5,692	1,049.06	32	153	1	3	43	26	7	. . .
Beaver Meadow,	Beaver Meadow,	129,292	116,893.18	193	338	. . .	4	1,728	17	34	1
Tomhicken,	Tomhicken,	77,823	67,184.09	200	243	. . .	1	2,199	3	35	1
Deringer, Gowen.	Deringer, Gowen,	273,894	252,074.06	261.5	798	1	5	7,141	18	89	4
Green Mountain,	Green Mountain,	. . . . .	. . . . .	. . .	20	. . .	. . .	. . . .	4	. . .	. . .
Men at general work, not producing coal,		. . . . .	. . . . .	. . .	158	. . .	. . .	. . . .	. . .	. . .	. . .
		1,005,221	893,813.10	216.6	3,318	6	25	22,512	149	344	13
Lehigh Coal and Navigation Company.											
No. 3,	Nesquehoning,	117,905	73,149.07	155	436	. . .	12	1,440	35	66	5
No. 4,	Lansford,	130,602	120,928.13	182.5	336	1	2	720	37	69	1
No. 5, No. 6,	do.	87,332	80,863.05	151	416	. . .	1	720	24	39	1
No. 9,	do.	127,941	129,553.19	170.5	387	1	2	240	22	65	3
Screen building,	Hanto,	. . . . .	. . . . .	. . .	140	. . .	. . .	. . . .	. . .	. . .	. . .
		463,780	394,495.04	165	1,715	2	17	3,120	118	239	10

TABLE No. 2.—Continued.

NAMES OF COLLIERIES.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs of powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.
Linderman, Skeer & Co.											
East Sugar Loaf, No. 1,	Stockton,	27,227	24,748	123.5	208	. . .	1	294	16	3	. . .
Do. No. 2,	do.	66,342	60,322.19	184.5	257	. . .	1	1,107	21	12	1
Do. No. 5,	do.	77,043	71,143.17	192.5	337	. . .	1	984	46	25	2
Humboldt,	Humboldt,	56,886	52,826.17	144.5	212	. . .	. . .	1,377	29	24	1
		227,498	209,036.13	161.2	1,014	. . .	3	3,762	112	69	4
G. B. Markle & Co.											
Oak Dale No. 1,	Jeddo,	79,155	62,869.12	140	230	. . .	1	848	27	49	1
Do. No. 2,	do.	93,168	85,668	145.6	228	1	5	1,520	28	42	1
Highland,	Highland,	92,217	83,925	143.7	273	1	2	1,898	21	59	. . .
Do. No. 2,	do.	94,367	85,789.17	138	241	. . .	1	1,688	18	43	. . .
		358,907	318,252.09	141.8	972	2	9	5,954	94	192	2
Upper Lehigh Coal Company.											
No. 2,	Upper Lehigh,	163,683	145,056.03	162.3	398	. . .	2	3,745	48	45	3
No. 4,	do.	124,935	119,828.02	163.3	251	. . .	3	2,086	16	41	1
		288,618	264,884.05	162.8	649	. . .	5	5,831	64	86	4
Pardee Bros. & Co.											
No. 2,	Lattimer,	69,164	58,090	133.5	340	. . .	2	1,275	34	39	2
No. 3,	do.	84,749	80,117	142	225	. . .	1	1,005	15	29	. . .
		153,913	138,207	137.7	565	. . .	3	2,280	49	68	2
J. C. Haydon & Co.											
Spring Mountain No. 1,	Jeanesville,	94,108	81,612.01	148	238	. . .	6	1,440	37	31	1
Do. No. 4,	do.	94,827	82,123.10	145	263	. . .	5	1,860	33	39	. . .
		188,935	163,735.11	146.5	501	. . .	11	3,300	70	78	1
G. U. Myers & Co.											
No. 5,	Yorktown,	54,406	28,509.06	86.2	187	. . .	. . .	504	32	16	1
No. 6,	do.	92,157	83,129.15	158.4	255	. . .	2	1,469	28	24	1
		127,563	111,639.01	122.3	442	. . .	2	1,973	60	40	2

Miscellaneous Companies.											
Sandy Run,	Sandy Run,	118,561	109,964.14	168.5	437	. . .	1	1,462	30	60	1
Mount Pleasant,	Mt. Pleasant,	104,150	89,351.11	145.3	393	. . .	4	1,835	45	41	. . .
Beaver Brook,	Beaver Brook,	126,540	115,095	137	344	. . .	1	2,759	40	30	1
Hollywood,	Hollywood,	93,528	86,528.03	143.7	285	. . .	7	2,371	30	45	1
Milnesville,	Milnesville,	75,043	70,061.01	126	322	. . .	. . .	1,006	29	26	2
Coleraine,	Coleraine,	77,031	72,428	173	316	. . .	. . .	1,769	32	33	2
Tresckow,	Tresckow,	71,360	58,728.14	141.8	265	2	1	1,310	36	26	1
Pond Creek,	Pond Creek,	34,294	32,353.02	168.5	93	. . .	. . .	1,132	6	13	1
Harleigh,	Harleigh,	Idle during y ear.									
Hazle Brook,	Hazle Brook,	37,185	33,885.13	170	226	1	. . .	1,039	12	13	. . .
Black Ridge,	Black Ridge,	31,879	28,981.05	160	146	. . .	. . .	1,158	12	9	1
Ebervale, Nos. 1 and 2,	Ebervale,	Idle during y ear.									
		769,561	697,377.04	153.4	2,827	3	14	15,241	272	296	10

Recapitulation.

A. Pardee & Co.,	Hazleton,	377,598	345,650.19	158	1,553	2	12	6,702	204	194	5
Coxe Bros. & Co.,	Drifton,	1,005,221	893,813.10	216.6	3,318	6	25	22,512	149	344	13
Lehigh Coal and Navigation Company,	Lansford,	463,780	394,495.04	165	1,715	2	17	3,120	118	239	10
Linderman, Skeer & Co.,	Stockton,	227,498	209,036.13	161.2	1,014	. . .	3	3,762	112	69	4
G. B. Markle & Co.,	Jeddo,	358,907	318,312.09	141.3	972	3	9	5,954	94	193	2
Upper Lehigh Coal Company,	Upper Lehigh,	288,618	264,884.05	162.8	649	. . .	5	5,831	64	86	4
Pardee Bros. & Co.,	Lattimer,	153,913	138,207	137.4	565	. . .	3	2,280	49	68	2
J. C. Haydon & Co.,	Jeanesville,	188,935	163,735.11	146.5	501	. . .	11	3,300	70	78	1
G. H. Myers & Co.,	Yorktown,	127,563	111,639.01	122.3	442	. . .	2	1,973	60	40	2
Miscellaneous companies,		769,561	697,377.04	153.4	2,827	3	14	15,241	272	296	10
Men at general work, but not producing coal,		. . . . .	. . . . .	. . .	540	. . .	. . .	. . . .	. . .	. . .	. . .
		3,961,594	3,537,191.16	155	14,096	15	101	70,675	1,192	1,607	53

TABLE No. 3.—Showing the number of each class of employés at each colliery in the Fourth Anthracite District during the year 1887.

NAMES OF COLLIERIES.	NUMBER OF PERSONS EMPLOYED INSIDE.							NUMBER OF PERSONS EMPLOYED OUTSIDE.							Grand total—Inside and outside.
	Inside foreman.	Miners.	Miners' laborers.	All other company men.	Drivers and runners.	Doorboys and helpers.	Total Inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All company men.	Superintendents, bookkeepers and clerks.	Total outside.	
A. Pardee & Co.:															
Hazleton Mine,	2	86	34	28	16	8	174	1	5	15	64	60	. . .	145	319
Laurel Hill,	1	40	41	21	13	2	118	1	8	19	58	34	. . .	120	238
Hazleton No. 3,	1	67	25	14	11	2	120	1	4	11	50	23	. . .	89	209
Hazleton No. 6,	1	30	35	7	7	3	83	1	4	4	79	20	. . .	108	191
South Sugar Loaf,	1	38	13	6	7	6	71	1	3	8	32	15	. . .	59	130
Cranberry,	1	165	52	36	35	7	296	1	10	21	75	51	. . .	158	454
Men at general work,	.	.	.	2	.	.	2	.	.	.	.	.	10	10	12
Total,	7	426	200	114	89	28	864	6	34	78	358	203	10	689	1,553
Coxe Bros. & Co.:															
Drifton No. 1,	4	280	155	161	39	19	658	6	15	29	210	127	6	393	1,051
Drifton No. 2,															
Eckley No. 5,	1	48	30	28	11	8	126	3	5	6	71	33	1	119	245
Eckley No. 10,	1	65	37	60	10	2	175	5	8	8	81	34	1	137	312
Stockton,	1	2	4	43	2	. . . .	52	2	15	6	40	37	1	101	153
Beaver Meadow,	1	73	17	57	8	5	161	3	10	16	105	42	1	177	338
Tomhicken,	1	73	10	44	6	4	141	3	7	8	55	28	1	102	243
Derringer,	2	269	55	117	29	21	493	5	22	21	184	71	2	305	798
Gowen,															
Green Mountain,	. . . .	1	8	5	. . .	1	15	. .	1	4	. . .	. . .	. . . .	5	20
Men at general work,	. . . .	.	.	.	. . . .	. .	. . .	.	.	.	. . .	.	.	158	158
Total,	11	814	316	513	105	60	1,821	27	83	98	746	372	13	1,497	3,318

Lehigh Coal and Navigation Company :															
No. 3,	2	118	52	41	28	20	261	2	9	21	74	69	2	175	436
No. 4,	1	91	5	69	21	12	199	1	4	16	69	47	2	137	336
No. 5,	1	65	24	28	6	3	127	1	5	10	64	51	. .	131	258
No. 6,	1	49	16	46	14	2	128	.	3	12	.	15	. .	30	158
No. 9,	1	101	45	49	21	10	227	1	7	13	76	63	.	160	387
Screen building,	. . . .	.	.	. .		.		1	5	6	67	69	2	140	149
Total,	6	414	142	233	90	47	942	6	33	78	350	314	6	773	1,715
Linderman, Skeer & Co.:															
East Sugar Loaf No. 1,	1	31	15	62	10	4	123	1	4	8	39	33	. .	85	218
East Sugar Loaf No. 2,	1	64	33	45	10	3	156	1	3	11	52	34	. .	101	257
East Sugar Loaf No. 5,	2	66	35	56	16	4	179	1	4	19	62	72	.	158	337
Humboldt,	1	29	45	4	9	12	100	2	6	11	40	49	4	112	212
Total,	5	190	128	167	45	23	558	5	17	49	193	188	4	456	1,014
G. B. Markle & Co. :															
Oak Dale No. 1,	1	59	8	25	17	15	125	1	3	6	41	50	4	105	230
Oak Dale No. 2,	1	76	16	13	13	15	134	1	3	5	41	40	4	94	228
Highland No. 1,	1	101	18	11	22	14	167	1	3	5	44	49	4	106	273
Highland No. 2,	1	80	25	12	18	12	148	1	3	5	40	40	4	93	241
Total,	4	316	67	61	70	56	574	4	12	21	166	179	16	398	972
Upper Lehigh Coal Company :															
Upper Lehigh No. 2, No. 2,	1	11	6	3	5	1	27	1	8	10	72	34	9	134	161
Upper Lehigh No. 2, No. 5,	1	36	38	9	9	10	103	. . .	2	5	.	.	. . . .	7	110
Upper Lehigh No. 2, No. 6,	1	20	22	4	3	5	55	. .	2	4	. . .	5	. . .	11	66
Upper Lehigh No. 2, No. 7,	. . .	23	21	3	4	2	53	.	1	3	. . . .	4	. . . .	8	61
Upper Lehigh No. 4,	1	62	62	11	10	9	154	1	4	10	66	16	. . . .	97	251
Total,	4	151	149	30	31	27	392	2	17	32	138	59	9	257	649
Pardee Bros. & Co. :															
Lattimer No. 1,	. .	14	12	6	5	1	38	1	4	4	. .	. .	. . . .	9	47
Lattimer No. 2,	1	76	4	42	9	5	137	1	4	8	69	70	4	156	293
Lattimer No. 3,	1	50	4	13	10	4	82	1	3	7	69	63	. . .	143	225
Total,	2	140	20	61	24	10	257	3	11	19	138	133	4	308	565
J. C. Haydon & Co. :															
Spring Mountain No. 1,	2	45	47	9	17	6	126	1	5	12	46	43	5	112	238
Spring Mountain No. 4,	2	54	56	24	21	8	165	1	7	10	48	32	. . .	98	263
Total,	4	99	103	33	38	14	291	2	12	22	94	75	5	210	501

TABLE No. 3—Continued.

NAMES OF COLLIERIES.	NUMBER OF PERSONS EMPLOYED INSIDE.							NUMBER OF PERSONS EMPLOYED OUTSIDE.							Grand total—Inside and outside.
	Inside foreman.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All other company men.	Superintendents, bookkeepers and clerks.	Total outside.	
G. H. Myers & Co. :															
No. 5,	1	28	33	16	5	1	84	1	4	8	39	30 18	3	103	187
No. 6,	1	34	56	23	10	3	127	2	5	8	48	50 15	....	128	255
Total,	2	62	89	39	15	4	211	3	9	16	87	113	3	231	442
Miscellaneous Companies :															
Sandy Run,	1	58	68	43	18	12	210	1	11	14	113	83	5	227	437
Mount Pleasant,	2	95	54	36	17	11	215	1	12	13	83	66	3	178	393
Beaver Brook,	1	75	10	14	14	6	207	1	6	15	80	30	5	137	344
Hollywood,	2	17	44	10	15	1	89	4	12	17	94	64	5	196	285
Milnesville,	1	15	1	8	4	.	29	2	6	18	82	184	1	293	322
Coleraine,	2	58	46	36	15	5	162	3	5	15	87	38	6	154	316
Tresckow,	1	22	26	60	19	2	130	1	7	13	55	57	2	135	265
Pond Creek,	1	31	27	4	7	7	77	1	2	4	....	7	2	16	93
Harleigh,	Idle during the year.														
Hazle Brook,	1	82	30	19	13	6	151	1	5	8	36	21	4	75	226
Black Ridge,	1	41	18	15	7	2	84	1	3	12	32	10	4	62	146
Ebervale No. 1 and 2,	Idle during the year.														
Total,	13	495	414	245	129	52	1,354	16	69	129	662	556	37	1,463	2,827

RECAPITULATION.

A. Pardee & Co.,	7	426	200	114	89	28	864	6	34	78	358	203	10	689	1 553
Coxe Bros. & Co.,	11	814	316	513	105	60	1,821	27	83	98	746	158 372	13	1,497	3,318
Lehigh Coal and Navigation Company,	6	414	142	233	90	47	942	6	33	78	350	314	6	773	1.715
Linderman, Skeer & Co.,	5	190	128	167	45	23	558	5	17	49	193	188	4	456	1,014
G. B. Markle & Co.,	4	316	67	61	70	56	574	4	12	21	166	179	16	398	972
Upper Lehigh Coal Company,	4	151	149	30	31	27	392	2	17	32	138	59	9	257	649
Pardee Bros. & Co ,	2	140	20	61	24	10	257	3	11	19	138	133	4	308	565
J. C. Haydon & Co.,	4	99	103	33	38	14	291	2	12	22	94	75	5	210	501
G. H. Myers & Co.,	2	62	89	39	15	4	211	3	9	16	87	113	3	231	442
Miscellaneous Companies,	13	495	414	245	129	52	1,354	16	69	129	662	560	37	1.473	2,827
Men at general work, not producing coal,														540	540
Total,	58	3,125	1,628	1.496	636	321	7,264	74	297	542	2,934	2,354	107	6,832	14,096

TABLE No. 4—List of fatal accidents occurring in and about the mines of the Fourth Anthracite District for the year ending December 31, 1887.

Date of accident.	Name of Person	Occupation.	Age.	Widow.	No. of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 28	Harry Wilson,	Door tender,	16			Drifton No. 1,	Luzerne,	Killed by a fall of coal.
Mar. 9	George Bierholder,	Laborer,	20			Hazle Brook,	do.	Suffocated by a fall of coal.
28	Philip Fellin,	Miner,	47	1	4	Stockton No. 3,	do.	Killed by an explosion of dynamite.
April 11	Patrick McGinley,	do.	65	1		No. 2,	do.	Fatally injured by a fall of coal.
28	Patrick Boyle,	do	46	1	2	No. 1,	do	Killed by a fall of rock.
May 7	Mike Corrilla,	Laborer,	19			do.	do.	Killed by being crushed in a breaker.
13	Stephen Shimpko,	Company laborer,	29	1	2	Eckley No. 5,	do.	Smothered by a fall of coal.
13	Thomas Friel,	Miner,	61	1		No. 7,	Carbon,	Both killed by the explosion of a blast.
13	Charles Friel,	Laborer,	19			do.	do.	
June 15	William Stemm,	Company man,	27			South Sugar Loaf,	Luzerne,	Crushed by a mine car.
16	George Gasper,	Fireman,	30			No. 5,	do.	Killed by a boiler explosion.
July 6	William Shifisky,	Driver,	19			No. 3,	do.	Fatally injured by cars.
20	Richard Morgan,	Slate picker,	15			No. 9,	Carbon,	Fatally injured by a car.
Aug. 20	John Watson, Jr.,	Miner,	27	1	2	No. 4,	Luzerne,	Fatally injured by an explosion of gas.
Nov. 10	Anton Weiss,	do.	40	1	6	Deringer,	do.	Killed by a fall of coal.

Number killed, 15; number of widows, 7; orphans, 16.

TABLE No. 5.—List of non-fatal accidents occurring in and about the mines of the Fourth Anthracite District for the year ending December 31, 1887.

Date of accident.	Name of Person.	Occupation.	Age.	Name of Colliery.	Location.	Nature and Cause of Accident.
Jan. 3,	Michael Brown,	Pumpman,	19	No. 3,	Stockton, Luzerne county,	Nose fractured; was struck by the handle of a windlass.
5,	Patrick O'Donnell,	Laborer,		No. 1,	Jeanesville, Luzerne co.,	Slightly injured; was struck by a piece of coal.
5,	Wm. I. Hughes,	Miner,		No 4,	do. do.	Hip injured; struck by a piece of rail.
10,	John O'Donnell,	Laborer,		No. 1,	do. do.	Fingers fractured while coupling cars.
13,	Carlo Gallicazza,	Miner,	50	No. 7,	Treseckow, Carbon county,	Seriously injured by a premature blast.
15,	John Matzgo,	do.	27	No. 2,	Eckley, Luzerne county,	Arm and hand badly cut by a fall of slate.
21,	Joseph Legrand,	Laborer,		No. 3,	Hazleton, Luzerne county,	Severely cut about body by a fall of coal.
21,	William Prositt,	Miner,		Sonth Sugar Loaf,	Luzerne county,	Seriously injured by a fall of coal.
24,	William Coxe,	Doorboy,	16	Gowen,	do.	Severely injured by falling from a trestling.
26,	John Johnson,	Miner,	29	Mt. Pleasant,	do.	Was seriously injured by a fall of coal.
27,	John Curran,	Laborer,		No. 1,	Jeanesville, Luzerne co.,	Was seriously injured by a fall.
28,	Michael Shottish,	Miner,		Hollywood,	Luzerne county,	Was injured by a fall of coal.
28,	George Gray,	do.		Hazleton Mine,	do.	Was seriously injured by a piece of coal rolling on him.
Feb. 2,	Michael Urish,	Laborer,	19	No. 4,	Upper Lehigh, county,	Leg fractured by a piece of coal rolling against it.
5,	Daniel Welsh,	Miner,	60	No. 2,	Highland, Luzerne county,	Was injured on head and shoulders by a fall of coal.
7,	Albert Hoebner,	Driver,	16	No. 6,	Hazleton, Luzerne county,	Was severely injured on leg, necessitating amputation.
9,	John Ward,	Laborer,	25	No. 2,	Drifton, Luzerne county,	Arm and leg injured by a fall of coal.
11,	John O'Donnell,	Miner,	22	No. 9,	Lansford, Carbon county,	These two men were severely injured by an explosion of a keg of powder by a spark from one of their lamps.
11,	William Clayton,	do.	25	No. 9.	do. do.	
26,	Andrew Began,	Laborer,		Hollywood,	Hollywood, Luzerne co.,	Leg fractured by a piece of coal rolling against it.
26,	Robert McHague,	Miner,		Hazleton Mine,	Luzerne county,	Wrist badly cut; was struck by a piece of coal.
Mar. 2,	Sam Wagsch,	Laborer,	30	No. 2	Oakdale, Luzerne county,	Was slightly injured on head; struck by a piece coal.
2,	Robert Mulrainey,	Miner,	45	No. 2,	do. do.	Arm fractured and otherwise injured by a fall of coal.
5,	James Thomas,	Oiler,	15	No. 1,	do do.	Fell under car; arm fractured.
7,	John Cosmat,	Laborer,		Beaver Brook,	Luzerne county,	Was injured by a fall of clay at stripping.
9,	Gottleib Nesbitt,	Miner,	40	No. 2.	Drifton, Luzerne county,	Was badly injured; caught between car and trough on slope.
10,	Michael Katchmar,	Laborer,		Beaver Meadow,	Carbon county,	Leg severely cut by a fall of slate.
10,	Edward Bruman,	Miner,		No. 2,	Drifton, Luzerne county,	Body and hip severely injured by a fall of coal.
19,	Patrick Duggan,	do.	32	No. 3,	Nesquehoning, Carbon co.,	Both these men were severely injured by a premature blast.
19,	John Havrey,	do.	33	No 3,	do. do.	
23,	John O. Murphy,	Laborer,	33	No. 2.	Stockton, Luzerne county,	Had his leg fractured by lumber rolling on it.
24,	John Lauratin,	Miner,	30	Derringer,	Luzerne county,	Both men were severely burned by an explosion of cartridges they had prepared for a blast.
24,	Joseph Nehex,	do.	28	do.	do.	
25,	Peter Carr,	do.		No. 5,	Eckley, Luzerne county,	Had the pupil of his eye injured by a piece of coal flying from his pick.

TABLE No. 5—Continued.

Date of accident.	NAME OF PERSON.	Occupation.	Age.	Name of Colliery.	Location.	Nature and Cause of Accident.
Mar. 25,	Joseph Jullan,	Laborer,		No. 3,	Stockton, Luzerne county,	Had his leg fractured by a piece of rock from a blast.
Apr. 2,	James Coalpit,	Rockman,	42	No. 1,	Jeanesville, Luzerne co.,	Both persons were seriously injured by a premature blast while carelessly forcing a dynamite cartridge with an iron tamping bar and hammer
2,	John McGarvey,	do.	29	No. 1,	do. do.	
4,	Lewis Davis,	Miner,	45	No. 5,	Stockton, Luzerne county,	Had his shoulder dislocated by a fall of coal.
11,	Cormick McCallum,	Comp'y man,		South Sugar Loaf,	Luzerne county,	Had his eye knocked out by a nail flying from under the hammer of his partner.
20,	Paul Donohue,	Miner,	50	No. 1,	Jeanesville, Luzerne co.,	Leg fractured by a fall of slate.
22,	John Hughes,	do.	40	No. 5,	Lansford, Carbon county,	Leg fractured and otherwise injured by fall of coal.
22,	John Brokenshire,	do.	45	No. 3,	Nesquehoning, Carbon co.,	Both persons were slightly injured by an explosion of gas.
22,	Wm. Hatkin,	do.	20	No. 3,	do. do.	
23,	Joseph Hudock,	Laborer,		Hollywood,	Carbon county,	Collar-bone fractured; was caught between cars.
29,	Joseph Fink,			do.	do.	Leg fractured; was caught between cars.
May 1,	John Barenhart,	Miner,		Laurel Hill,	Laurel Hill, Luzerne co.,	Slightly burned by an explosion of gas.
1,	Herman Morganstern,	Loader,		Cranberry,	Luzerne county,	Arm and foot crushed; fell under railroad cars.
3,	George Kirschner,	Foreman,		Hollywood strippings,	do.	Both persons were seriously burned by an explosion of powder.
3,	Elmer Evans,	Asst. foreman,		do. do.	do.	
5,	Lewis Miller,	Comp'y man,	33	No. 4,	Jeanesville, Luzerne co.,	Leg severely injured while riding on a timber car.
13,	Casper Scharfer,	Miner,	45	Gowen,	Gowen, Luzerne county,	Leg fractured by a fall of slate.
25,	James McGinley,	Conductor,	25	No. 2,	Drifton, Luzerne county,	Hand crushed; caught between car and locomotive.
25	William Rowe,	Miner,	23	Beaver Meadow,	Carbon county,	Had his leg badly cut and bruised by a fall of slate.
27,	John Bucker,	do.	33	do. do.	do.	Severely injured by a fall of coal.
27,	Herman Knapple,	do.	29	Eckley No. 2,	Luzerne county,	Ankle fractured by a fall of coal.
28,	Quintiglio Arnold,	do.	22	Derringer,	do.	Leg fractured by a fall of coal.
June 6,	William Thomas,	Driver,	16	Yorktown,	do.	Leg fractured; fell under mine car.
6,	Cormick Conahan,	Miner,	35	South Sugar Loaf,	do.	Injured about body by a fall of coal.
6,	Joseph Snaffager,	Laborer,	36	Mt. Pleasant,	do.	Severely injured by a fall of coal.
6,	Michael Kohl,	do.	25	Nesquehoning,	Carbon county,	Jaw fractured; was struck by a car he was putting on the road.
6,	Peter Garrahan,	Driver,	17	do.	do.	Leg fractured; his mule tramped on him.
7,	George Burke,	Miner,	30	Lattimer No. 1,	Luzerne county,	Leg fractured.
8	Joseph Mathews,	do.		Hazleton Mine,	do.	Slightly burned by an explosion of gas.
8,	John Middle,	Laborer,	22	Stockton No. 3,	do.	Leg fractured; fell while lifting heavy timber.
14,	Thomas Eroh,	do.	22	Upper Lehigh No. 4,	do.	Leg fractured by a piece of coal sliding against it.
14,	John Belshline,	Miner,	45	Highland No. 1,	do.	Severely cut on face and shoulder by a fall of coal.
16,	Anglo Paleomo,	Loader,	24	Lattimer,	do.	Was severely injured; head caught between top rail and coal chute.
16,	Christian Bach,	Carpenter,	38	Eckley No. 5,	do.	Leg fractured; was struck by a piece of exploding boiler.

20,	Joseph Molskey,	Laborer,	45	Yorktown No. 6,	Carbon county,	Severely injured by a fall of coal at stripping.
21,	William Ford,	Engineer,	23	Stockton,	Luzerne county,	Severely scalding by escaping steam from locomotive.
22,	George Trewren,	Miner,	40	Lansford. No. 4,	Carbon county,	Leg fractured by a fall of coal.
29,	John Volkenand,	Carpenter,	36	Upper Lehigh,	Luzerne county,	Leg fractured by falling from the roof of a stable.
29,	John Heinmer,	Helper,	17	Drifton No. 2,	do.	Leg fractured; fell under mine cars.
29,	Charles Ward,	Laborer,	18	Mt. Pleasant,	do.	Leg fractured by a fall of slate.
July 6,	John Breshock,	Oiler,	14	Drifton No. 2,	do.	Leg fractured; was caught by a belt in breaker.
13,	John Balko,	Laborer,	26	Hollywood,	do.	Severely injured; slipped and fell into chute in breaker.
15,	William McCabe,	Miner,	35	Nesquehoning,	Carbon county,	Was seriously injured about face and eyes by premature blast.
18,	Hugh McCabe,	L. Eng.,	45	do.	do.	Ribs fractured; was struck by a lever.
27,	Adam Kidon,	Laborer,	30	do.	do.	Jaw-bone fractured; was struck by a sprag that flew out of the wheel of a car.
22,	Fred. Bing,	Miner,	27	do.	do.	Seriously hurt on the eye; was struck by a piece of coal.
26,	Charles Boyle,	do.	40	Beaver Meadow,	do.	Leg fractured; was struck by a piece of coal flying from a blast.
30,	John Shuck,	Laborer,	19	South Sugar Loaf,	Luzerne county,	Arm fractured and otherwise injured while dumping a car.
30,	Edward Moore,	Patcher,	17	Upper Lehigh No. 4,	do.	Arm fractured; caught by a car wheel while spragging.
30,	Michael Stroboroskie,	Miner,	27	Oakdale No. 2,	do.	Leg fractured by a fall of coal.
30,	Mike Heydock,	do.	28	do.	do.	Severely bruised about body by the same fall.
Aug. 1,	William Ronemus,	do.	30	Nesquehoning,	Carbon county,	Both persons slightly burned by an explosion of fire-damp.
1,	Joseph Dougherty,	Laborer,	24	do.	do.	
1,	John Hainlin,	Miner,	30	Hazleton No. 6,	Luzerne county,	Severely injured; squeezed between mine cars.
1,	John Petrascet,	do.	39	Mt. Pleasant,	do.	Compound fracture of leg; caused by a fall of coal.
1,	Dominic Sweitzer,	do.	28	Oakdale No. 2,	do.	Leg fractured and otherwise injured by a fall of coal.
3,	A. Davis,	do.	30	Jeanesville No. 4,	do.	These two men were severely injured by an explosion of Rackarock powder.
3,	John Steck,	Laborer,	28	do.	do.	
6,	John Bourer,	Miner,	32	Drifton No. 2,	do.	Was severely injured by a fall of coal.
10,	Clement Cassari,	do.	32	Eckley No. 2,	do.	Severely burned about face and hands by a premature blast.
17,	Wm. Van Horn,	do.	29	Upper Lehigh No. 7,	do.	Leg fractured by a fall of coal.
19,	Marcus Toland,	Slate picker,	14	Sandy Run,	do.	Seriously injured leg and skull fractured; he was caught by a pulley while tarring the rope on the top of the breaker.
20,	John Watson,	Miner,	50	Lansford No. 4,	Carbon county,	Was severely injured by an explosion of gas in his chamber.
24,	Joseph Volinsky,	do.	25	Tomhickon,	Luzerne county,	Thumb crushed and otherwise badly injured by a fall of coal.
Sept. 8,	James Costello,	Laborer,	17	Lattimer strippings,	do.	Leg fractured by falling under a car.

RECAPITULATION.

By explosion of carburetted hydrogen gas,	7
By falls of all kind,	37
By cars inside and outside,	21
By premature blasts and explosion of powder,	18
By machinery inside and outside,	2
By boiler explosion,	1
By miscellaneous causes inside and outside of mines,	15
Total number injured,	101

The names and post-office address of the mine foremen in the Fourth Anthracite District who received certificates of service as provided in Article VIII of the Anthracite Mine Law:

James Durkin, ... Hazleton, Luzerne county, Pa.
Conrad Miller, ... Hazleton, Luzerne county, Pa.
Peter Watson, ... Hazleton, Luzerne county, Pa.
William Hatkin, ... Hazleton, Luzerne county, Pa.
Henry Youngcourt, ... Hazleton, Luzerne county, Pa.
John W. Henry, ... Hazleton, Luzerne county, Pa.
Benjamin Rees, ... Hazleton, Luzerne county, Pa.
Thomas Kromise, ... Upper Lehigh, Luzerne county, Pa.
J. S. McDonald, ... Lansford, Carbon county, Pa.
Archibald Reeves, ... Lansford, Carbon county, Pa.
Charles Powell, ... Coaldale, Carbon county, Pa.
David W. Griffith, ... Lansford, Carbon county, Pa.
W. D. Thomas, ... Audenried, Carbon county, Pa.
W. M. Davis, ... Beaver Meadow, Carbon county, Pa.
Martin Corrigan, ... Milnesville, Luzerne county, Pa.
Thomas Charton, ... Sandy Run, Luzerne county, Pa.
Stephen Charles, ... Sandy Run, Luzerne county, Pa.
Michael Marley, ... Drifton, Luzerne county, Pa.
David W. James, ... Drifton, Luzerne county, Pa.
James Lewis, ... Eckley, Luzerne county, Pa.
Hugo Ronennis, ... Nesquehoning, Carbon county, Pa.
Benjamin Hammond, ... Nesquehoning, Carbon county, Pa.
Rees Davis, ... Tomhicken, Luzerne county, Pa.
Evan Watkins, ... Gowen, Luzerne county, Pa.
Isaac D. Williams, ... Drifton, Luzerne county, Pa.
Thomas Howells, ... Beaver Meadow, Carbon county, Pa.
Daniel Sachs, ... Deringer, Luzerne county, Pa.
William James, ... Humboldt, Luzerne county, Pa.
Thomas Shepherd, ... Upper Lehigh, Luzerne county, Pa.
Thomas E. Griffiths, ... Harleigh, Luzerne county, Pa.
Robert Hagan, ... Lattimer, Luzerne county, Pa.
William H. Dunn, ... Beaver Meadow, Carbon county, Pa.
Henry Horrox, ... Jeddo, Luzerne county, Pa.
Thomas Brown, ... Freeland, Luzerne county, Pa.
John C. Turner, ... Jeddo, Luzerne county, Pa.
Owen R. Williams, ... Tresckow, Carbon county, Pa.
Samuel Williams, ... Jeanesville, Luzerne county, Pa.
Morgan Rees, ... Jeanesville, Luzerne county, Pa.
Thomas R. Edwards, ... Stockton, Luzerne county, Pa.
Josiah Jenkins, ... Stockton, Luzerne county, Pa.
Peter Floyd, ... Stockton, Luzerne county, Pa.
William Donald, ... Stockton, Luzerne county, Pa.

William Cooke, ... Stockton, Luzerne county, Pa.
George Nesbit, ... Ebervale, Luzerne county, Pa.
Jacob Schumacher, ... Do. Luzerne county, Pa.
James Long, ... Eckley, Luzerne county, Pa.
David Phillips, ... Drifton, Luzerne county, Pa.
Patrick Boyle, ... Drifton, Luzerne county, Pa.
Levi Harris, ... Hazle Brook, Luzerne county, Pa.
Fred. Young, ... Mt. Pleasant, Luzerne county, Pa.
George Hishburn, ... Mt. Pleasant, Luzerne county, Pa.
William Powell, ... Upper Lehigh, Luzerne county, Pa.
Gomer E. Jones, ... Upper Lehigh, Luzerne county, Pa.
George Kirschner, ... Hollywood, Luzerne county, Pa.
Isaac Evans, ... Yorktown, Luzerne county, Pa.
John N. Davis, ... Lansford, Carbon county, Pa.
W. H. Evans, ... Summit Hill, Carbon county, Pa.
Thomas M. Whildin, ... Lansford, Carbon county, Pa.
Benjamin Gibbon, ... Drifton, Luzerne county, Pa.
Joseph Dixon, ... Lattimer, Luzerne county, Pa.
August Yeager, ... Hazleton, Luzerne county, Pa.
David Macfarlane, ... Jeanesville, Luzerne county, Pa.
John Airey, ... Stockton, Luzerne county, Pa.
Paul Winters, ... Drifton, Luzerne county, Pa.
*Peter Pitt, ... Black Ridge, Luzerne county, Pa.

The names and post office address of successful applicants for certificates of qualifications. The examination was held in Hazleton, May 25 and 26, 1886. The examiners were James E. Roderick, Inspector, Hazleton, Pa.; M. S. Kemmerer, operator, Mauch Chunk, Pa., and Anthony Reilly, miner, Hazleton, Pa.:

†D. I. Thomas, ... Beaver Brook, Luzerne county, Pa.
‡William Hughes, ... Jeanesville, Luzerne county, Pa.
†Samuel Dunkerly, ... Jeddo, Luzerne county, Pa.
James Bolin, ... Freeland, Luzerne county, Pa.
‡Joseph James, ... Drifton, Luzerne county, Pa.
†John Gundry, ... Stockton, Luzerne county, Pa.
†George M. Davis, ... Lansford, Carbon county, Pa.
‡D. O. Pritchard, ... Freeland, Luzerne county, Pa.
William Pritchard, ... Lansford, Carbon county, Pa.
‡Isaac M. Stickler, ... Lansford, Carbon County, Pa.
‡Joseph Kelshaw, ... Beaver Meadow, Carbon county, Pa.
Lawrence Boyce, ... Beaver Meadow, Carbon county, Pa.
‡James Rowe, ... Beaver Meadow, Carbon county, Pa.
David R. Lloyd, ... Drifton, Luzerne county, Pa.

*These names were left out of my last year's report through some oversight at Harrisburg.

† These men had been mine foremen for years before the law of 1885.

‡ These men have been engaged as mine foremen since receiving certificates.

The above list of names was also mislaid at Harrisburg, which is the reason that it did not appear in my last report.

The annual examination of candidates for certificates of qualifications was held in Hazleton June 22 and 23, 1886.

The board of examiners for the Fourth District composed of James E. Roderick, Inspector, Hazleton, Pa.; M. S. Kemmerer, operator, Mauch Chunk, Pa., and Alexander Morton, miner, Jeanesville, Pa. Follow-lowing are the names and post-office address of the successful applicants:

*William Aubrey,	Eckley, Luzerne county, Pa.
Thomas Jefferson Williams,	Lansford, Carbon county, Pa.
*Elmer E. Evans,	Hollywood, Luzerne county, Pa.
William Hammond,	Nesquehoning, Carbon county, Pa.
William H. Davis,	Lansford, Carbon county, Pa.
John T. Burns,	Lattimer, Luzerne county, Pa.
*Thomas McNamara,	Beaver Meadow, Carbon county, Pa.
Thomas Morgan,	Yorktown, Carbon county, Pa.
*Evan Thomas,	Drifton, Luzerne county, Pa.
Thomas D. Davis,	Drifton, Luzerne county, Pa.
John D. Williams,	Drifton, Luzerne county, Pa.
*William Hale,	Lattimer, Luzerne county, Pa.
William Davis,	Drifton, Luzerne county, Pa.
David Edmunds,	Drifton, Luzerne county, Pa.
Gomer S. Morgan,	Freeland, Luzerne county, Pa.

*Those having a star [*] affixed have been engaged as mine foremen since receiving their certificates.

FIFTH ANTHRACITE DISTRICT.

Office of Inspector of Mines,
Shenandoah, Pa., *March 10, 1888.*

Hon. Thomas J. Stewart,
Secretary of Internal Affairs:

Sir: I have the honor of herewith presenting to you my third annual report of the Fifth Inspection District of Schuylkill.

Accompanying this report are tables containing statements of the number of employés, number of tons of coal mined, number of accidents and their causes for 1887, and comparisons with the preceding five years.

We are glad to be able to report that no unusual accident has occurred in this district during the year, yet the fatal accidents number fifty-five (55), being fourteen (14) more than in 1886, with an increase in the production of coal mined of 435,710.14 tons.

It must be quite apparent to the reader acquainted with mining operations, and especially to every intelligent miner after carefully reading the list of accidents, that many of them have occurred on account of their own carelessness, or of those with whom they are working. I find that after examining into the causes of the fatal accidents, twenty-three (23) have lost their lives by carelessness. I intend to give a detailed account of all such accidents for the year 1888, as well as to refer briefly to the condition of each colliery in my district, also giving the names of each foreman in charge inside and outside.

General Condition of the Collieries.

The condition of the collieries in my district is good, with but few exceptions. Some have started only towards the close of the year, and it will take some time to complete the necessary improvements, which are in course of construction. Some collieries, I am sorry to say, have suffered more or less from want of proper ventilation, and yet the volume of air in the colliery is sufficient for all purporses, but the foreman fails to look after its proper distribution, and makes no effort to keep the air up to the working spaces. This as a matter of course, is detrimental to the interest of the operator, to the workmen under his charge in various ways, and also brings him into conflict with the mine inspector, for by a studied unwillingness to comply with the law, it would seem as if litigation was courted by some foremen.

I notice some very valuable improvements made during the year at some of the breakers in my district. At Kehley's Run the boilers under the breaker have been torn out, which was very much needed, and Mr. Baird has my thanks for having them removed, although from Article 5, section 2, of the Mine Ventilation Law, I could not enforce their removal. The boilers and their connections for supplying steam to all the machinery outside and inside have been renewed, and built of the best boiler-plate in the market, and their connections and buildings has had Mr. Baird's special supervision, so as to insure the greatest amount of safety possible against boiler explosions.

At Ellangowan Colliery some very valuable improvements have been made at the breaker. The machinery at this breaker is better fenced off than at any colliery in the Fifth district. A fan has also been put in to take the dust from the workmen. This is the only fan in use in connection with breakers in my district. Steam pipes have also been put in all around the breaker and under the picking tables, so as to keep men and boys warm in winter. Formerly large stoves were used for heating purposes, which were always looked upon as a source of great danger from fire. A great many other appliances have from time to time been put in place, which are not only useful but safe. Mr. Charles Beach and his assistant, Mr. Thomas Williams, make it a study always to have every department of their colliery in good condition, which makes it well worthy of the name of the "Model Colliery." The shipment from Ellangowan in 1887 was 435,335.19 tons.

I send a section on line of hoisting slope, Girard Colliery, Girardville, showing this slope sunk from first (1st) lift gangway, going through the strata between the Holms and Mammoth Veins, south dip, pitch 63°, and cutting through the Mammoth Vein on the north dip. A tunnel is driven south to Skidmore Vein, and gangways are being driven east and west. These gangways are to be the principal transportation gangways. At intervals tunnels will be driven north from these gangways, cutting the Mammoth Vein on both dips, and gangways driven, the breasts opened from these gangways to be driven to their limit, coal drawn out of breasts, then sectionally, finally "rob" out the Mammoth gangways, thus avoiding the protracted maintenance in keeping gangways open on the Mammoth Vein. A tender slope is also sunk on Holm's Vein and east of hoisting slope, to be used for hoisting men and material to carry on mining. These two slopes have been sunk at a great deal of expense. The new work is well timbered. A new twenty-foot fan is to be built, and return air courses of large area driven to connect therewith, which when the plans are in full operation, if not the cheapest shipping colliery, will make one of best conducted in the coal regions.

WILLIAM STEIN,
Inspector.

Appended to my report is a sketch showing position of rock blown out by dynamite near bottom of bore-hole No. 1, Kohinoor colliery, Shenandoah, belonging to the Philadelphia and Reading Coal and Iron Company, as well as a sketch of the appliances used for its accomplishment under the supervision of Mr. John L. Williams, division mining superintendent.

It was found that the former operators, Messrs. Heckscher & Co., in course of mining coal from the Mammoth vein, in the neighborhood and under the Grant and other properties, a very large opening had been formed about one hundred (100) yards square, the vein being sixty (60) feet thick at this point, on account of which the property owners became alarmed as to the safety of their lives and property, and an appeal was made to prevent any more mining. It became a matter of serious consideration on the part of the officials of the Philadelphia and Reading Coal and Iron Company what should best be done to protect the property built over this large cavity and more especially the lives of those living in that vicinity and also to still continue mining coal without injury to either.

Mining at this district of the colliery was suspended until some means could be devised to prevent a collapse of the overlying strata. After mature deliberation of those in charge and in any way interested, it was decided to put down three (3) bore-holes from the surface at intervals and having a relative connection to this large opening, so as to run down with water "silt" from the culm banks.

The first bore-hole was put down on the Grant property to a depth of three hundred and ninety-eight (398) feet and eight (8) inches diameter and passing through two hundred (200) feet of conglomerate rock.

When the open space had been filled up to a point from which the bottom of the bore-hole could be seen and examined, it was discovered that the top rock of the vein had fallen on the east side of the bore-hole twenty-five (25) feet higher than bottom of bore-hole. As it was very desirable to fill the cavity as nearly as possible, and it being impossible to deposit the slush at any higher point than the bottom of the bore-hole, it was necessary that some plan must be adopted to fill up this twenty-five (25) feet. On examination the rock to east and at bottom of bore-hole was found to be six (6) feet to A, as shown by the irregular line A, B, C, D on sketch, ten (10) feet at B, and twenty-five (25) feet at D.

It was found impossible to drive an opening to the bore-hole between the lines D E and C F on account of the broken and dangerous surroundings. Mr. Williams, into whose charge the entire operations had been given, conceived the idea that an opening under the smooth D E must be made to the bore-hole from above. He therefore took the initiatory step to plug the bottom of the hole so as to resist the force of the explosives to be used in causing a displacement of the

rock from F to C. This was done by the plug shown on large scale in accompanying sketch made of oak seven and three quarters ($7\frac{3}{4}$) inches in diameter and two (2) feet long, sawed through its entire length, with a hole bored through the middle to admit the passage of an iron bolt one and a half ($1\frac{1}{2}$) inches in diameter, the head of which was made in the shape of a cylinderical wedge.

The top of the plug was hollowed out so as to allow the wedge-shaped head of the bolt to enter about one-half its length, with the two halves of the oak plug close together. Across the bottom of plug a piece of oak timber two (2) feet long by six (6) inches thick was placed so as to give a bearing of eight (8) inches on the face of the rock on either side of bore-hole with an iron washer and the nut screwed loosely on end of bolt. The plug being inserted as shown on sketch and the nut tightened so as to pull the wedge into the plug and forcing it against the sides of the bore-hole, an iron cap was also placed on top of the wedge before entering the plug into the hole so as the force of the explosion would tend to tighten rather than blow it out. The bore-hole was then filled up with sand within four and a half ($4\frac{1}{2}$) feet of smooth D E, the distance ascertained by soundings.

A tin case was made four and a half ($4\frac{1}{2}$) feet long and six (6) inches in diameter with a handle made of seven-eighth ($\frac{7}{8}$) round iron flattened out to form a strap down both sides and across the bottom. Four steel bow springs were attached near the top of the case to hold it in position in the hole and also to pull it up if from any cause it was found necessary.

Before putting the dynamite in the case it was loaded and let down the hole to the sand in the bottom and drawn out again to prove that no obstruction was in the way to prevent the cartridge going to the desired point. It was charged then with fifty (50) pounds of dynamite and let down and fired with a galvanic battery.

On examination after everything was quiet inside it was found that the rock in the space C, D, E, F was all broken although not displaced while the plug in the bottom of bore-hole showed no sign of having been disturbed.

As the rock in the space C, D, E, F was only broken up, it was decided to displace it with another shot by dropping a few pounds of dynamite wrapped in lamp cotton allowing it to explode by concussion. This was continued until thirty-five (35) pounds were dropped down into the hole and which was then fired by a stick of dynamite with fuse and cap attached, and, lighting the fuse, the whole was let fall to the bottom. This second blast cleared out the space C, D, E, F entirely four (4) feet wide, making a perfectly clear opening through which the slush could flow and is now filled up.

The work of filling up under No. 2 bore-hole was then commenced, and in a few months will have these large openings filled up. I have visited inside in company with Mr. Williams several times, walking on

top of the material run down, and found it quite hard. The water leaves the silt after it is deposited and finds its way to the shaft, where it is again hoisted to the surface. The water at this colliery has all along been hoisted, the only one where pumps are not used in my district.

Mr. Williams may well feel proud of the undertaking he originated, as it not only restores the safety of a large district of the city of Shenandoah, but it is calculated that six hundred thousand (600,000) tons of coal can be got through his effort which would have been otherwise lost, and my object in giving a descriptive detail of the means used to fill up this large and dangerous underground excavation is that it may be instrumental in putting it into the minds of others mining coal and placed in such like circumstances to do as is being done at Kohinoor colliery.

TABLE No. 1.—Showing Comparative Statement of Fatal Casualties for the Years 1886 and 1887.

	Years.	
	1886.	1887.
Explosions of fire-damp,	1	2
Explosions of blasting materials,	3	1
Premature explosions,	2	1
Falls of coal and roof,	21	31
Crushed by mine cars,	6	9
By machinery on surface,	. . . . .	2
Falling down shafts and slopes,	1	1
Explosions of boilers,	1	. . . . .
Miscellaneous,	6	8
Totals,	41	55

Number of Fatal Accidents and Amount of Coal Produced per Life Lost.

	Number of fatal accidents.	Tons of coal produced per fatal accident.
Philadelphia and Reading Coal and Iron Company,	26	125,832.8+
Lehigh Valley Coal Company,	4	79,874.7+
Lehigh and Wilkes-Barre Coal Company,	5	55,576.6
Lentz, Lilly & Company,	4	76,083.4
Individual firms,	16	75,301.5+

TABLE No. 2.—Showing Comparative Statement of Non-Fatal Casualties for the Years 1886 and 1887.

	Years.	
	1886.	1887.
Explosions of fire-damp,	3	8
Explosions of blasting materials,	6	6
Premature explosions,	4	2
By coal flying from shots,	1	2
Falls of coal and roof,	30	41
Crushed by mine cars,	25	22
By machinery on surface,	3	2
Falling down shafts and slopes,	1	4
Explosions of boilers,		1
Miscellaneous,	28	17
Totals,	101	105

TABLE No. 3.—Showing the Amount of Coal Produced and Shipped During the Years 1886 and 1887 Respectively.

	Years.	
	1886.	1887.
Amount of coal produced,	4,972,502.07	5,396,465.04
Amount of coal shipped,	4,570,146.18	5,005,857.12

TABLE No. 4.—Comparative Table Between the Years 1886 and 1887.

	Years.	
	1886.	1887.
Number of persons employed,	15,191	14,608
Tons of coal produced per life lost,	121,280	98,117
Ratio of employés per life lost,	370	265.6
Number of tons mined per each personal injury,	49,232	33,727
Average number of tons mined per employé,	321	369.4
Ratio of employés per each personal injury,	152	91.3

TABLE No. 5.—Taking the Death Rate per Thousand as a Basis of Comparison Between the Different Companies and Individual Operators we have the Following Ratio for the Year 1887:

	Number of employés.	Number of deaths.	Death rate per thousand.
Philadelphia and Reading Coal and Iron Company,	7,618	26	3.41
Lehigh Valley Coal Company,	1,429	4	2.79
Lehigh and Wilkes-Barre Coal Company,	924	5	5.41
Lentz, Lilly & Company,	1,115	4	3.58
Individual firms,	3,522	16	4.54
Totals,	14,608	55	3.94

TABLE No. 6.—Comparative Statement of Fatal and Non-Fatal Casualties and their Causes for Five Years.

FATAL CASUALTIES.	YEARS.					Totals for five years.	Aggregate.
	1883.	1884.	1885.	1886.	1887.		
Explosions of fire-damp,	6	2	4	1	2	15	...
Explosions of blasting materials,	2	6	5	3	1	17	...
Premature explosions,	6	...	...	2	1	9	...
By coal flying from shots,	...	...	1	...	...	1	...
Falls of coal and roof,	14	20	25	21	31	111	...
Crushed by mine cars,	8	8	4	6	9	35	...
By machinery on surface,	4	1	1	...	2	8	...
Falling down shafts and slopes,	...	4	3	1	1	9	...
Explosions of boilers,	3	.	2	1	...	6	...
Miscellaneous,	3	2	8	6	8	27	238
Totals of the respective years,	46	43	53	41	55	...	...
Non-Fatal Casualties:							
Explosions of fire-damp,	22	26	9	3	8	72	...
Suffocated by gas,	...	...	2	...	...	2	...
Explosions of blasting material,	5	...	7	6	6	24	...
Premature explosions,	5	11	2	4	2	24	...
By coal flying from shots,	5	...	4	1	2	12	...
Falls of coal and roof,	42	47	29	30	41	189	...
Crushed by mine cars,	26	23	17	25	22	113	...
By machinery underground,	...	...	1	...	...	1	...
By machinery on surface,	3	3	3	3	2	14	...
Breaking of ropes and chains,	...	...	1	...	...	1	...
Falling down shafts and slopes,	...	7	2	1	4	14	...
Explosions of boilers,	...	1	2	...	1	4	...
Miscellaneous,	26	20	35	28	17	126	596
	134	138	105	101	105	...	...

TABLE No. 7.—Comparative statement of casualties, tonnage, and employés for five years in the Fifth Anthracite District.

	Killed.	Injured.	Total.	Total number of employes.	Number of employes to each casualty.	Number of tons of coal mined to each fatal casualty.	Total number of tons of coal mined.	Number of tons of coal mined to each non-fatal casualty.	Ratio of tons of coal to each casualty.	Number of tons of coal mined to each employe.
1883,	46	134	180	13,999	74	103,292.00	4,854,724.19	36,229.00	26,821.10	366.10
1884,	43	138	181	14,884	82.30	104,948.18	4,512,800.07	32,701.09	24,987.06	303.04
1885,	53	105	158	15,151	95.90	90,217.30	4,781,517.14	45,538.20	30,262.70	315.59
1886,	41	101	142	15,191	106.97	121,280.10	4,972,502.07	49,232.60	35,017.00	320.66
1887,	55	105	160	14,608	91.3	98,117.00	5,396,445.04	51,394.7	33,727.75	369.4
Totals,	238	583	821	73,833	450.20	427,854.58	26,517,988.51	215,094.96	150,815.61	1,674.43
Average,	47⅗	116⅗	164⅕	14,766⅗	89.244	85,570.91⅗	4,903,597.70⅕	43,018.99⅕	30,163.12⅕	334.88⅗

TABLE 1.—Showing location of collieries in the Fifth Anthracite District.

NAME OF COLLIERY.	Name of Operator.	Location—Schuylkill county.	Name of Superintendent.	Postoffice Address.
Boston Run,	Philadelphia and Reading Coal and Iron Co.,	St. Nicholas,	John Veith,	Pottsville.
Bear Run,	do. do.	do.	do.	do.
Buck Mountain,	Buck Mountain Coal Company,	Mahanoy City,	John G. Scott,	Buck Mountain.
Cambridge,	Cambridge Coal Company,	Shenandoah,	William Smith,	Shenandoah.
Draper,	Draper Coal Company,	Gilberton,	B. F. Williams,	Gilberton.
Ellangowan,	Philadelphia and Reading Coal and Iron Co.,	Maple Dale,	John Veith,	Pottsville.
Elmwood,	do. do.	Mahanoy City,	do.	do.
Girard,	do. do.	Girardville,	do.	do.
Girard Mammoth,	do. do.	Raven Run,	do.	do.
Gilberton,	do. do.	Gilberton,	do.	do.
Glendon,	J. C. Haydon & Co.,	Mahanoy City,	William P. Daniels,	Mahanoy City.
Hammond,	Philadelphia and Reading Coal and Iron Co.,	Girardville,	John Veith,	Pottsville.
Honey Brook No. 1,	Lehigh and Wilkes-Barre Coal Company,	Audenreid,	J. P. Hollenbeck,	Audenreid.
Do. No. 4,	do. do.	do.	do.	do.
Do. No. 5,	do. do.	do.	do.	do.
Indian Ridge,	Philadelphia and Reading Coal and Iron Co.,	Shenandoah,	John Veith,	Pottsville.
Knickerbocker,	do. do.	Yatesville,	do.	do.
Kohinoor,	do. do.	Shenandoah,	do.	do.
Kehley's Run,	Thomas Coal Company,	do.	Thomas Baird,	Shenandoah.
Lawrence,	Lawrence & Brown,	Mahanoy Plane,	Simon Moore,	Frackville.
Mahanoy City,	Philadelphia and Reading Coal and Iron Co.,	Mahanoy City,	John Veith,	Pottsville.
North Mahanoy,	do. do.	do.	do.	do.
North Laurel Ridge,	S. H. Barrett,	Gilberton,	P. McLaughlin,	Frackville.
Packer No. 1,	Lehigh Valley Coal Company,	Colorado,	Colonel D. P. Brown,	Lost Creek.
Do. No. 2,	do. do.	Lost Creek,	do.	do.
Do. No. 3,	do. do.	Brownsville,	do.	do.
Do. No. 4,	do. do.	Lost Creek,	do.	do.
Do. No. 5,	do. do.	Rappahannock,	do.	do.
Park No. 2,	Lentz, Lilly & Co.,	Park Place,	Edward Reese,	Centralia, Columbia county.
Primrose,	Nevills & Co.,	Mahanoy City,	James Wynn,	Mahanoy City.
St. Nicholas,	Philadelphia and Reading Coal and Iron Co.,	St. Nicholas,	John Veith,	Pottsville.
Schuylkill,	do. do.	Mahanoy City,	do.	do.
Suffolk,	do. do.	St. Nicholas,	do.	do.
Shenandoah City,	do. do.	Shenandoah,	do.	do.
Stanton,	do. do.	Maizeville,	do.	do.
South Laurel Ridge,	S. H. Barratt,	Gilberton,	P. McLaughlin,	Frackville.
Silver Brook,	Silver Brook Coal Company,	Audenreid,	William J. Harris,	Silver Brook.
Springdale,	Lentz, Lilly & Co.,	Park Place,	Edward Reese,	Centralia, Columbia county.
Turkey Run,	Philadelphia and Reading Coal and Iron Co.,	Shenandoah,	John Veith,	Pottsville.
Tunnel Ridge,	do. do.	Mahanoy City,	do.	do.
West Shenandoah,	do. do.	Shenandoah,	do.	do.
West Bear Ridge,	do. do.	Mahanoy Plane,	do.	do.
William Penn,	William Penn Coal Company,	Shaft P. O.,	William H. Lavis,	Shaft P. O.
South Shenandoah,	H. Reese,	Shenandoah,	H. Reese,	Turkey Run.
Furnace,	Zerbe & Co.,	Gilberton,	O. Zerbe,	do.

TABLE No. 2.—Gives the total number of tons of coal mined and tons of coke produced from each colliery, number of days worked, number of employés, number of persons killed and injured, number of kegs of powder used, etc., in the Fifth Anthracite Mining District, for the year ending December 31, 1887.

NAMES OF COLLIERIES.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	No. days worked.	No. persons employed.	No. fatal accidents.	No. non-fatal accidents.	No. kegs powder used.	No. steam boilers.	No. horses and mules.
Boston Run,	St. Nicholas, Schuylkill county,	127,715.15	120,715.15	225 17/20	285	. . .	4	3,310	21	29
Bear Run,	St. Nicholas, do. do.	166,229.04	156,229.04	251 9/20	359	2	4	3,370	20	33
Buck Mountain,	Mahanoy City, do. do.	89,534.06	83,746.06	191	335	3	. . .	4,243	22	22
Cambridge,	Shenandoah, do. do.	10,039.00	9,949.00	200	35	. . .	. . .	180	2	8
Draper,	Gilberton, do. do.	146,621.00	132,655.00	212	426	2	1	2,580	32	35
Ellangowan,	Maple Dale, do. do.	459,335.19	435,335.19	258 9/20	667	1	6	9,930	20	77
Elmwood,	Mahanoy City, do. do.	111,244.08	105,244.08	210 13/20	250	. . .	2	2,825	16	26
Girard,	Girardville, do. do.	. . .	. . .	. . .	121	. . .	2	325	16	10
Girard Mammoth,	Raven Run, do. do.	68,666.11	61,666.11	202½	173	2	1	1,700	12	18
Gilberton,	Gilberton, do. do.	112,923.12	100,923.12	259	332	. . .	6	3,600	26	35
Glendon,	Mahanoy City, do. do.	76,978.10	69,099.00	150 2/10	328	. . .	2	*2,840	24	35
Hammond and Connor,	Girardville, do. do.	183,730.17	163,730.17	235 15/20	324	2	2	4,275	24	63
Honey Brook No. 4,	Audenried, do. do.	116,193.08	106,689.06	161 1/10	391	1	1	2,474	22	32
Honey Brook No. 5,	Audenried, do. do.	161,689.14	145,110.14	169 1/10	533	4	3	2,698	60	43
Indian Ridge,	Shenandoah, do. do.	247,823.03	227,823.03	250¼	622	2	5	6,500	32	65
Knickerbocker,	Yatesville, do. do.	242,156.16	234,156.16	228 18/20	639	. . .	4	6,300	34	54
Kohinoor,	Shenandoah, do. do.	254,586.18	240,586.18	246 9/20	515	6	3	6,700	30	54
Kehley's Run,	Shenandoah, do. do.	136,189.14	132,888.14	267¼	317	1	1	4,650	18	35
Lawrence,	Mahanoy Plane, do. do.	149,182.06	119,982.06	284	362	1	. . .	708	36	34
Mahanoy City,	Mahanoy City, do. do.	163,826.12	153,826. 2	242 13/20	319	1	2	3,925	24	37
North Mahanoy,	Mahanoy City, do. do.	169,898.06	161,898.06	261 5/20	424	1	2	5,550	16	39
North Laurel Ridge,	Gilberton, do. do.	83,048.05	83,031.05	252	83	. . .	2	550	5	7
Packer No. 2,	Lost Creek, do. do.	245.00	Idle.	None.	19	. . .	. . .	None.	22	10
Packer No. 3,	Brownsville, do. do.	109,185.13	102,067.13	135¾	449	3	. . .	2,130	24	34
Packer No. 4,	Lost Creek, do. do.	138,611.10	121,511.10	132½	501	1	1	3,030	30	37
Packer No. 5,	Rappahannock, do. do.	71,424.01	61,097.01	112 2/10	460	. . .	1	2,812	28	25
Park No. 2,	Park Place, do. do.	246,371.17	228,856.07	201 1/20	784	2	5	7,212	35	87

Primrose,	Mahanoy City,	do.			104,882.14	97,312.14	244 $\frac{2}{16}$	301	3		3	3,195	16	20
St. Nicholas,	St. Nicholas,	do.						3					16	3
Schuylkill,	Mahanoy City,	do.			102,179.18	96,179.18	213 $\frac{3}{16}$	319	3		4	2,975	20	21
Suffolk,	St. Nicholas,	do.			168,181.04	154,181.04	215 $\frac{2}{16}$	425	1		6	4,500	15	32
Shenandoah City,	Shenandoah,	do.			274,320.15	259,320.15	261 $\frac{2}{16}$	547	1		8	6,400	12	65
Stanton,	Maizeville,	do.			79,472.14	73,472.14	240 $\frac{4}{16}$	111			1	290	24	28
South Laurel Ridge,	Gilberton,	do.			19,721.01	19,721.01	198	114		1	1	300	10	10
Silver Brook,	Silver Brook,	do.			94,816.12	90,816.12	176	312	2		2		20	17
Springdale,	Park Place,	do.			74,212.01	67,824.14	165 $\frac{2}{16}$	331	2		3	1,516	25	55
Turkey Run,	Shenandoah,	do.			170,743.06	160,743.06	262 $\frac{2}{16}$	413			3	4,200	11	46
Tunnel Ridge,	Mahanoy City,	do.			26,584.18	24,584.18	67 $\frac{1}{16}$	267			1	400	24	27
West Shenandoah,	Shenandoah,	do.			149,032.05	140,032.05	233 $\frac{1}{16}$	365	4		6	3,025	26	44
West Bear Ridge,	Mahanoy Plane,	do.						22					20	6
William Penn,	Shaft,	do.			340,000.00	310,000.00	293	819	3		7	5,000	42	50
Mahanoy Jig-house,	Mahanoy City,	do.						86					10	
South Shenandoah,	Shenandoah,	do.			1,387.19	1,387.19		8						
Furnace,	Gilberton,	do.			2,421.11	2,421.11		21						

*3,050 pounds of dynamite.

TABLE No. 3.—Showing the number of each class of employees at each colliery in the Fifth Anthracite District, during the year 1887.

NAMES OF COLLERIES.	NUMBER OF PERSONS EMPLOYED INSIDE.							NUMBER OF PERSONS EMPLOYED OUTSIDE.							Grand total inside and outside.
	Inside foreman.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Outside foreman.	Blacksmiths and carpenters	Engineers and firemen.	Slate pickers.	All other company men.	Superintendent's bookkeepers and clerks.	Total outside.	
Boston Run,	1	135	39	10	8	6	199	1	4	12	68	. . .	1	86	285
Bear Run,	1	144	60	25	18	3	251	1	4	14	88	. .	1	108	359
Buck Mountain,	2	159	28	15	11	7	222	1	4	9	59	37	3	113	335
Cambridge,	1	25	. .	. . .	2	. .	28	1	. .	. . .	4	.	. . . .	5	33
Draper,	1	107	120	10	12	11	261	1	7	8	90	56	3	165	426
Ellangowan,	2	305	70	9	28	15	429	2	8	16	200	11	1	238	667
Elmwood,	1	115	16	7	13	5	157	1	4	11	70	6	1	93	250
Girard,	1	67	12	11	. .	. . . .	91	1	8	12	7	. . .	2	30	121
Girard Mammoth,	2	74	14	10	8	. . .	108	1	5	10	40	8	1	65	173
Gilberton,	1	155	50	12	12	7	237	1	4	14	75	. . . .	1	95	332
Glendon,	1	120	49	44	11	4	229	1	14	8	59	24	2	108	328
Hammond,	2	142	15	10	26	6	200	1	7	13	90	12	1	124	324
Honey Brook No. 4,	2	84	64	70	23	5	248	1	6	13	75	48	. .	143	391
Honey Brook No. 5,	3	73	40	142	36	8	302	1	12	23	107	85	3	231	533
Indian Ridge,	2	225	100	17	58	11	413	2	7	20	160	9	3	209	622
Knickerbocker,	3	200	80	2	28	10	333	1	8	20	270	5	2	306	639
Kohinoor,	2	196	170	19	46	18	351	1	8	30	140	14	1	194	545
Kehley's Run,	1	106	18	20	12	10	167	1	6	5	85	50	3	150	317
Lawrence,	2	60	8	134	10	8	222	1	4	5	78	50	2	14	362
Mahanoy City,	1	128	40	11	16	14	210	1	4	17	80	5	2	109	319
North Mahanoy,	2	191	60	10	26	9	298	1	4	11	100	9	1	126	424
North Laurel Ridge,	1	26	4	10	2	1	44	1	2	24	10	1	1	39	83
Packer No. 2,	1	3	. .	2	. .	. .	6	1	1	7	. .	4	. . .	13	19
Packer No. 3,	3	128	75	50	14	7	277	1	7	12	89	70	2	172	449
Packer No 4,	4	153	22	83	18	6	286	1	13	16	118	66	1	215	501
Packer No 5,	4	140	48	58	10	8	268	1	12	18	95	65	1	192	460
Park No 2,	2	378	80	24	34	15	533	1	21	14	127	87	1	251	784
Primrose,	1	100	19	30	3	4	157	1	3	3	89	45	3	144	301
St Nicholas,	. . .	. .	. .	. .	. .	. . .	. .	. .	. .	3	.	. . .	. .	3	3
Schuylkill,	1	100	70	14	21	9	215	1	4	9	83	6	1	104	319

| | | |

TABLE No. 4.—List of fatal accidents occurring in the mines of the Fifth Anthracite District for the year ended December 31, 1887.

Date of accident.	Name of Person Injured.	Occupation.	Age.	Married or single.	No. of orphans.	Name of Colliery.	Location. Schuylkill county.	Date of Investigation.	Nature and Cause of Accident in Brief.
Jan. 7,	James Houston, ...	Miner, ...	25	M.,	. . .	Girard Mammoth, ...	Raven Run, . . .	Jan. 8,	Killed by a long collar falling on him; he was cutting the leg from under it.
8,	Alfred Dehm, ...	Outside driver,	16	S.,	. . .	West Shenandoah, . . .	Shenandoah, . . .	8,	Fatally injured by dirt dumper; running, his foot caught between the rails.
14,	John Slavoc, ...	Inside laborer,	37	M.,	. . .	No. 1 Slope, Honey Brook,	Audenreid, ...	15,	Killed by fall of coal. Wife and family in Poland.
28,	Antonis Szatkus, ...	do.	32	M.,	2	Kohinoor, ...	Shenandoah, . . .	29,	Killed by fall of coal. Wife and children in Poland.
Feb. 4,	John Bighel, ...	Outside laborer,	24	S.,	. . .	Springdale, ...	Park Place, ...	Feb. 4,	Killed by falling through trestling; attempting to get down from upper to lower track.
14,	Resse Scourfield, ...	Miner, ...	25	M.,	1	Primrose, ...	Mahanoy, ...	15,	Killed by fall of coal skipping.
19,	George Newman, ...	do.	40	M.,	1	Schuylkill, ...	do. . . .	21,	Killed by fall of top slate.
19,	Martin Jacobs, ...	Fire-boss, . . .	34	M.,	3	Buck Mountain, ...	do. . . .	22,	Fatally injured by turnout collar falling on him; died on the 20th.
Mar. 9,	Frank Friday, ...	Miner, ...	48	S.,	. . .	Schuylkill, ...	do. . . .	Mar. 10,	Fatally injured by fall of clod, died in Miners' Hospital July 7th.
15,	John Shupitis, ...	do.	35	M.,	1	Buck Mountain, ...	do. . . .	16,	Killed by fall of coal.
16,	Patrick McNiff, ...	do.	45	M.,	7	Mahanoy City, ...	do. . . .	16,	Killed by fall of coal.
25,	Jeremiah Curran, ...	do.	54	M.,	4	Girard Mammoth, ...	Raven Run, . . .	26,	Fatally injured by fall of coal; died on the 26th.
April 5,	George Bladusky, ...	do.	27	M.,	2	Ellangowan, ...	Maple Dale, . . .	April 5,	Fatally injured by fall of coal; died in Miners' Hospital on the 6th.
9,	Edward Dix, ...	do.	30	S.,	. . .	Kohinoor, ...	Shenandoah, . . .	10,	Killed by fall of coal.
16,	Alexander Rodger, . . .	do.	35	S.,	. . .	Packer No. 3, ...	Brownsville, . . .	16,	Killed by fall of coal.
27,	Matthias Gelenis, ...	Slate-picker, . .	28	S.,	. . .	Indian Ridge, ...	Shenandoah, . . .	27,	Smothered in Buckwheat coal chute.
May 7,	Anthony Burdick, ...	Miner, ...	43	M.,	6	Buck Mountain, ...	Mahanoy, ...	May 9,	Killed by fall of coal. Family in Poland.
14,	Christ. Fraus, ...	Bottom man, .	21	S.,	. . .	Packer No. 4, ...	Lost Creek, . . .	16,	Killed between cars; cause, misplaced switch.
16,	Bernard Murray, ...	Miner, ...	30	M.,	2	Suffolk, ...	St. Nicholas, . . .	17,	Killed by fall of top slate. Family in England.
June 7,	Sil Plobblis, ...	Laborer, ...	30	M.,	. . .	Bear Run, ...	do. . . .	June 7,	Fatally injured by fall of top slate; died in Miners' Hospital on the 8th.
7,	Joseph Duriski, ...	do. . . .	30	S.,	. . .	Silver Brook, ...	Audenreid, ...	8,	Killed by rush of coal from high side of gangway.
7,	Thomas Duriski, ...	do. . . .	25	S.,	. . .	Silver Brook, ...	do. . . .	8,	Killed at same time and place with Joseph Duriski (brothers).
11,	Dennis O'Conner, ...	Outside foreman	35	S.,	. . .	Honey Brook No. 5, . . .	do. . . .	12,	Killed by fall of surface rolling on him, strippings.
22,	John Welsh, ...	Miner, ...	40	M.,	6	William Penn, ...	Shaft, ...	27,	Killed by fall of coal.

July 2,	John Davidson,	do.	34	M.,	2	Hammond,	Girardville,	July 4,	Killed by fall of top coal.
13,	Patrick Campbell,	Outside laborer,	54	M.,	4	Honey Brook No. 5,	Audenreid,	15,	Fatally injured between two cars; died in Miners' Hospital on the 14th.
18,	George Taylor,	Fire-boss,	67	M.,	4	Packer No. 3,	Brownsville,	19,	Fatally burned by explosion of fire-damp; died September 22; children all married.
26,	Thomas Borne,	Miner,	35	M.,	3	Kohinoor,	Shenandoah,	27,	Killed by a rush of loose coal coming on him.
Aug. 5,	Peter Ludwin,	Laborer,	40	M.,	3	do.	do.	Aug. 5,	Killed by fall of top rock.
7,	Richard Barratt,	Slate-picker,	15			William Penn,	Shaft,	8,	Killed between buggy and cross beam of breaker.
12,	Patrick Cook,	do.	16			Packer No. 3,	Brownsville,	13,	Killed; locomotive run over him.
20,	James Hennessy,	Miner,	46	M.,	5	West Shenandoah,	Shenandoah,	22,	Killed by fall of top coal.
29,	Robert Martin,	Starter,	28	S.,		Draper,	Gilberton,	29,	Killed by explosion of dynamite.
Sept. 6,	Robert MacKay,	Miner,	35	M.,	4	do.	do.	Sept. 9,	Fatally injured by fall of coal; died on 10th.
10,	William Sunderland,	do.	34	M.,	3	Kohinoor,	Shenandoah,	13,	Killed by fall of top coal.
15,	John Bjerstein,	do.	30	M.,	3	Bear Run,	St. Nicholas,	17,	Killed; fired a shot about himself.
20,	Constantine Baronoski,	Driver,	44	M.,	3	No. 3 Slope, Park No. 2,	Park Place,	20,	Killed between cars and breast platform.
23,	Patrick Manorion,	Miner,	30	M.,		Schuylkill,	Mahanoy,	24,	Killed by fall of top coal.
Oct. 12,	David Hughes,	Outside laborer,	21	S.,		Primrose,	do.		Fatally injured between dumper and breaker timber; died on the 25th.
13,	Charles Newman,	Carpenter,	50	M.,	8	Kehley's Run,	Shenandoah,	Oct. 14,	Killed; run over on dirt plane; cause misplaced switch.
18,	Gilbert Harris,	Miner,	31	M.,	2	Primrose,	Mahanoy,	19,	Killed by fall of coal. One child adopted.
20,	Martin McCormick,	Driver,	17	S.,		Indian Ridge,	Shenandoah,	23,	Fatally injured; dragged along track with oil box of car; died January 18, 1888.
21,	Michael Mitchell,	Laborer,	26	S.,		Shenandoah City,	do.	21,	Killed by fall of top coal.
26,	George Parry,	Miner,	22	S.,		West Shenandoah,	do.	27,	Killed by fall of top slate.
27,	John Keich,	do.	45	M.,	3	North Mahanoy,	Mahanoy,	28,	Fatally burned with fire-damp; died on 29th.
Nov. 8,	John Fairley,	Laborer,	27	S.,		West Shenandoah,	Shenandoah,	Nov. 9,	Killed by fall of coal.
15,	August Sheffler,		35			Springdale,	Park Place,	15,	Killed by the descending cage; was looking down the shaft; not an employee.
16,	Zaconiamic Saveris,	Outside laborer,	40	M.,	2	Honey Brook No. 5,	Audenreid,	17,	Killed by surface fall at strippings. Family in Italy.
30,	John Grabuski,	Miner,	28	S.,		Park No. 2,	Park Place,	Dec. 2,	Killed by fall of coal.
Dec. 2,	Samuel Wilson,	do.	53	S.,		William Penn,	Shaft,	5,	Killed by fall of coal.
6,	Patrick O'Toole,	Repairman,	30	S.,		Lawrence,	Mahanoy Plane,	6,	Killed by falling down slope.
10,	Alexander Concoski,	Laborer,	28	S.,		Kohinoor,	Shenandoah,	10,	Killed by fall of top coal.
13,	Francisenik Zbnockie,	Outside laborer,	32	M.,		Honey Brook No. 5,	Audenreid,	15,	Killed by fall of surface strippings. Family in Poland
19,	Patrick McCormick,	Miner,	48	M.,	2	Hammond,	Girardville,	21,	Killed by fall of rough bench.
20,	John McDonald,	Outside driver,	18	S.,		South Laurel Ridge,	Gilberton,	23,	Fatally injured between dumper and breaker-brace; died on December 22.

TABLE No. 5—List of non-fatal accidents occurring in the mines of the Fifth Anthracite District for the year ending December 31, 1887.

Date of accident.	NAME OF PERSON INJURED.	Occupation.	Age.	Married.	No. of children.	Name of Colliery.	Location—Schuylkill Co.	Date of investigation.	Nature and Cause of Accident in Brief.
Jan. 3,	Henry Lindermuth,	Slate picker,	15			Gilberton,	Gilberton,		Leg broken; went on roof of breaker and fell down on railway
4,	Henry Fowler,	Laborer,				Park Nos. 2 and 3 Slope,	Park Place,		Small finger cut off; fell under cars.
6,	Patrick Malloy,	Miner,				William Penn,	Shaft,		Leg broken by fall of coal.
10,	Patrick McNulty,	Driver,				West Shenandoah,	Shenandoah,		Leg severely cut
14,	Patrick Ryan,	Miner,				Knickerbocker,	Yatesville,		Leg broken by fall of top slate.
14,	Joseph Casper,	do.				Bear Run,	St. Nicholas,		Leg broken by fall of top coal.
14,	John W. Hesser,	do.				Kohinoor,	Shenandoah,		Leg broken by fall of top coal.
15,	Charles Herbine,	Loader,				West Shenandoah,	do.		Knee cap split.
21,	John Beveredge,	Miner,				Henry Brook No. 5,	Audenreid,		Injured by a fall.
25,	John Botham,	Door boy,	15			Packer No. 4,	Lost Creek,		Leg broken and arm crushed by jumping on moving cars.
26,	Robert Fishburn,	Miner,				Shenandoah City,	Shenandoah,		Back and hips bruised by fall of coal.
31,	Arthur Trezise,	do.	28	Married,		Gilberton,	Gilberton,	Jan. 31,	Hands and face burned by powder; a spark from lamp fell into the keg.
31,	Joseph Stremus,	Laborer,				do.	do.	Jan. 31,	Hands and face burned under the same circumstances as Trezise.
31,	Edward Genst,	do.	20	Single,		Kehley's Run,	Shenandoah,		Leg broken by fall of coal.
Feb. 4,	John Morris,	do.				Honey Brook Nos. 1 & 4 Slope,	Audenreid,		Leg broken by fall of coal.
5,	Henry H. Becker,	Miner,				Glendon,	Mahanoy,		Shoulder dislocated by fall of coal.
7,	Thomas Williams,	do.				William Penn,	Shaft,		Leg broken by fall of coal.
8,	John Cohoon,	Carpenter,	64	Married,	6	Girard,	Girardville,	Feb. 8,	Leg broken by boiler explosion.
16,	Ed. Brehney,	Miner,	38	do.	4	North Laurel Ridge,	Gilberton,	Feb. 16,	Left hand blown off by explosion of dualin caps.
16,	Stephen Poluski,	do.	24	do.		Ellangowan,	Maple Dale,	Feb. 16,	Leg broken by fall of coal.
17,	Thomas Moody,	Jo.	40	do.		Suffolk,	St. Nicholas,		Fingers broken; caught between "buggy" and top slate at dump.
22,	Peter Munday,	do.	45	do.		Boston Run,	do.		Ribs broken; fell off cage while being hoisted up slope.
25,	Robert Colvert,	do.				Hammond,	Girardville,		Legs squeezed by fall of coal.
25,	John H. Williams,	Driver,	16			West Shenandoah,	Shenandoah,		Arm broken; thrown from mule's back.
28,	Robert Davis,	Miner,				Silver Brook,	Audenreid,		Arm broken; slipped on slope track and fell 20 feet.
Mar. 1,	William Horrix,	do.	30	Married,		Ellangowan,	Maple Dale,		Ribs broken by fall of slate.
1,	William Foley,	Rock dumper,	24	Single,		Knickerbocker,	Yatesville,		Small bone of hand broken; kicked by a mule.

	3,	Joseph Alexander,	Laborer,	24	do.	Indian Ridge,	Shenandoah,		Ankle cut by coal rolling on him while loading car.
	16,	James Bennett,	Miner,			Silver Brook,	Audenreid,		Leg broken; fell down trial slope.
Apr.	5,	George Bossock,	do.	30		Ellangowan,	Maple Dale,	Apr. 5,	Head cut by fall of top slate.
	9,	Joseph Dusto,	Engineer,	30	Married,	Shenandoah City,	Shenandoah,		Leg fractured; his foot was caught in the act of starting his engine.
	13,	William Mallons,	Bottom man,			William Penn,	Shaft,		Leg bruised between cars.
	16	Peter Jones,	Miner,			Turkey Run,	Shenandoah,		Leg fractured by fall of coal.
	27,	Michael Coakley,	Door boy,	14		Kohinoor,	do.		Arm broken; jammed between cars and door frame
May	9,	Andrew Brennan,	Miner,			Suffolk,	St. Nicholas,		Rib broken; struck with a drill.
	9,	Martin Stantus,	do.			Turkey Run,	Shenandoah,		Leg broken by fall of coal.
	10,	Hugh McDonald,	do.	22	Single,	Shenandoah City,	do.		Face, neck and hands burned with powder by trimming his lamp over the powder.
	10,	Patrick Dixon,	Driver,	19	do.	do. do.	do.		Body squeezed between cars.
	12,	Thomas Butler,	Miner,	44	Married,	do. do.	do.		Collar bone broken and otherwise bruised by fall of coal.
	12,	Steve Gushwarra,	Laborer,	44	do.	Turkey Run,	do.		Leg broken by a piece of coal falling on him.
	14,	William Crennan,	do.	19	Single,	William Penn,	Shaft,		Arm seriously injured; he fell and car ran over his arm.
	16,	John T. Francis,	Miner,	45		Nos. 5 and 10 Slope, Audenreid.	Audenreid,		Cut over the eye and back; injured by fall of slate,
	23,	Reese Thomas,	do.			Primrose,	Mahanoy,	May 24	Slightly burned on the arms with fire damp; used his naked lamp
	23,	Joseph Butler,	Driver,	16	Single,	Suffolk,	St. Nicholas,		Collar bone broken; between car and mule.
	26,	Peter Petenopsky,	Loader,	28	do.	do.	do.		Foot crushed between sprag and wheel of car.
June	2,	Lewis Bolinski,	Miner,	25	do.	William Penn,	Shaft,		Burned slightly by fire damp; used his naked lamp.
	2,	Robert Jones,	do.	37	Married,	Bear Run,	St. Nicholas,		Ankle broken by fall of top slate.
	16,	John Surah,	Laborer,	26	Single,	Honey Brook No. 5, Green Mountain.	Audenreid,		Burned severely on face and hands with powder; trying to fire with raw charge.
	20,	August Stunk,	Miner,			West Shenandoah,	Shenandoah,		Spine and legs injured by a fall of coal.
	27,	A. McAroski,	do.			Gilberton,	Gilberton,		Leg broken by fall of top rock.
July	6,	Patrick Carrol,	do.			Boston Run,	St Nicholas,		Hip bone broken; fell down cage hole.
	7,	Steve Mochnache,	do.	44		Ellangowan,	Maple Dale,		Leg broken by fall of top coal.
	18,	Jacob Webb,	do.	26		Primrose,	Mahanoy,		Slightly burned by explosion of fire-damp.
	19,	Patrick Rowan,	do.			Packer No. 5,	Rappahannock,		Slightly burned by premature explosion.
	20,	Frank Kleckner,	do.	28	Married,	Elmwood,	Mahanoy,		Burned on face and hands by explosion of fire damp.
	21,	John Lynch,	do.	29	do.	Bear Run,	St. Nicholas,		Slightly bruised by fall of top coal.
	25,	Chas. Alexander,	do.	38	do.	Ellangowan,	Maple Dale,		Thigh bone broken by fall of top slate.
	28,	Thos. Coughlin,	do.	23	Single,	Girard,	Girardville,		Arm broken; struck by a piece of rock from shot.
Aug.	2,	Michael Canfield,	do.			Park Nos. 2 and 3 Slope,	Park Place,		Leg bruised by fall of coal.
	5	John Smith,	do.			North Mahanoy,	Mahanoy,		Body bruised by fall of top coal.
	13,	Peter Marsden,	Pump engineer,	35	Married,	Schuylkill,	do.		Collar bone broken; jammed between two cars.
	18,	Lewis Moll,				Girard Mammoth,	Raven Run,		Leg broken by fall of coal.
	27,	Samuel Walter,	Miner,			Springdale,	Park Place,		Leg broken by fall of coal.
	29,	George Lawson,	Starter,	30	Married,	6 Draper,	Gilberton,		Foot and hand blown off by explosion of dynamite.

TABLE No. 5—Continued.

Date of accident.	NAME OF PERSON INJURED.	Occupation.	Age.	Married.	No. of children.	Name of Colliery.	Location—Schuylkill Co.	Date of Investigation.	Nature and Cause of Accident in Brief.
Sept. 6,	Joseph Ramsher,	Loader boss,	31	.....	..	West Shenandoah, ...	Shenandoah,	.....	Ankle broken; rock rolled down the chute on him.
7,	Thomas Adams,	Miner,	30	.....	..	North Mahanoy, ...	Mahanoy,	.....	Leg broken by fall of top coal.
7,	John Cuttoe,	Outside laborer,	40	Single,	..	Suffolk, ...	St. Nicholas,	.....	Thigh and body squeezed between cars.
9,	Charles Jones,	Driver,	19	do.	..	Mahanoy City, ...	Mahanoy,	.....	Leg broken in attempting to jump on moving cars.
9,	Harry Lloyd,	Outside laborer,	16	.....	..	William Penn, ...	Shaft,	.....	Leg broken; jammed between cars.
10,	Thomas Coughlin,	Laborer,	20	Single,	..	Kohinoor, ...	Shenandoah,	.....	Legs squeezed by fall of coal.
15,	Hugh Sherry,	Starter,	24	do.	..	Boston Run, ...	St. Nicholas,	.....	Head cut and body bruised.
15,	Michael Brennan,	Miner,	32	do.	..	Indian Ridge, ...	Shenandoah,	.....	Knee dislocated; fell running from a fall of coal.
16,	Patrick Smith,	Slate picker,	15	.....	..	North Laurel Ridge, ...	Gilberton,	.....	Leg broken by mine car.
30,	Joseph Lynch,	Miner,	.	.....	..	Park Nos. 2 and 3 Slope,	Park Place,	.....	Collar bone broken; between car and tally board.
Oct. 3,	John Robertson,	do.	42	Married,	..	Knickerboeker, ...	Yatesville,	.....	Leg fractured; his neighbor workmen fired a shot and did not warn him to get away.
6,	John Sullivan,	do.	40	do.	..	Mahanoy City, ...	Mahanoy,	.....	Leg broken by fall of coal.
8,	John Cagus,	Laborer,	30	Single,	..	Schuylkill, ...	do.	.....	Burned on hands and face by explosion of fire-damp.
10,	Michael Matthus,	do.	.	.....	..	do.	do.	.....	Burned on hands and face by explosion of fire-damp.
10,	George Comets,	do.	.	.....	..	do.	do.	....	Burned on hands and face by explosion of fire-damp.
12,	William Coughlin,	Outside laborer,	.	.....	..	Springdale, ...	Park Place,	.....	Two fingers cut off by a car.
14,	John Prosser,	Miner,	35	Married,	..	Shenandoah City, ...	Shenandoah,	....	Radius fractured and severe contusions by fall of coal.
15,	Charles Zeller,	do.	..	.....	..	Primrose, ...	Mahanoy,	.....	Slightly burned by gas; took his naked lamp into place of work.
15,	Peter Malia,	Jig hand,	16	.....		Indian Ridge, ...	Shenandoah,	.....	Arm broken by a fall.
18,	Frederick Smith,	Laborer,	34	.....	..	William Penn, ...	Shaft,	.....	Shoulder dislocated by fall of top slate.
1 .	Mike Birmingham,	Miner,	58	.....	..	Gilberton, ...	Gilberton,	.....	Back and shoulder injured by fall of coal.
28,	Al. Snivanus,	Laborer,	23	Single,	..	Bear Run, ...	St. Nicholas,	.....	Arm broken by fall of coal.
Nov. 2	John Recufski,	Miner,	.	.....	..	Ellangowan, ...	Maple Dale,	....	Head and back slightly injured by fall of coal.
3,	Steve Comauckie,	Slate picker,	26	Single,	..	Springdale, ...	Park Place,	....	Arm torn off; he was pushed into roller cogs by a breaker boy.

8,	Moses Davis,	Miner,			Indian Ridge,	Shenandoah,		Leg broken by prop rolling on him.
10,	John Willingham,	do.			Knickerbocker,	Yatesville,		Small bone of foot broken by fall of top rock.
11,	John Carey,	do.			Hammond,	Girardville,		Head and face cut by premature explosion.
11,	Edward Davis,	Fire boss,			Stanton,	Maizeville,		Arm broken; caught between car and timber.
14,	Patrick O'Brien,	Fireman,			Shenandoah City,	Shenandoah,		Rib broken by a fall.
19,	Charles Trinkle,	Outside runner,			West Shenandoah,	do.		Groin injured; dirt dumper fell back on him.
19,	Frank Donavitch,	Outside driver,			Tunnel Ridge	Mahanoy,		Leg broken; the rock in chute rushed on him in starting it.
Dec. 3,	Patrick O'Neal,	Miner,	49		Boston Run,	St. Nicholas,		Leg broken; a piece of coal rolled down "manway" on him.
12,	Daniel Murphy,	do.	27		Elmwood,	Mahanoy,		Leg broken by fall of coal.
12,	Thomas Burns,	do.	40	Single,	Gilberton,	Gilberton,		Leg broken by fall of coal.
12,	John Handzo,	Loader,	25	do.	Glendon,	Mahanoy,		Collar bone broken; was riding between cars and fell off.
14,	Patrick Ward,	Miner,	21		Indian Ridge,	Shenandoah,		Collar bone broken; head and back bruised by fall of top slate.
17,	Manus Tolan,	do.			Park No. 2 Slope,	Park Place,		Legs severely squeezed by fall of coal from "rib."
19,	Joseph Maduski,	Loader,			Park Nos. 2 and 3 Slope,	do.		Squeezed about body; riding between cars.
19,	Patrick Horan,	Miner,			South Laurel Ridge,	Gilberton,		Ankle squeezed by fall of top slate.
20,	John L. Thomas,	do.	35	Married,	Suffolk,	St. Nicholas,		Ribs broken; fell off scaffold into ditch.
22,	George L. Hafner,	Car loader,	24	do.	Shenandoah City,	Shenandoah,		Body squeezed between gondola and coal chute.

SIXTH ANTHRACITE DISTRICT.

Hon. Thomas J. Stewart,

Secretary of Internal Affairs:

Sir: In compliance with an act of Assembly entitled "An act to provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania, and for the protection and preservation of property connected therewith," approved June 30, 1885, I herewith have the honor of submitting this, my tenth annual report, which contains a list of the persons killed and injured, the number of tons of coal mined and shipped to market, the number of kegs of powder used, number of days worked, number of persons employed, number of mules and horses, number of steam boilers in and about the collieries in the district during the year 1887, and such other information as may be deemed of importance to those employed or interested in the mining and production of coal.

Total production for year 1887,	4,737,622.11
Total production for year 1886,	3,714,519.00
Increase over that of year 1886,	1,023,103.11
Number of employés inside,	9,409
Number of employés outside,	5,384
Total number of employés in district,	14,793
Number of kegs of powder used during year,	113,624
Number of days worked during year,	227¾
Number of mules and horses,	1,707
Number of steam boilers,	935
Number of fatal casualties,	52
Number of non-fatal casualties,	134

Recapitulation of Fatal Casualties.

Falls of coal and roof,	16
Explosions of carbureted hydrogen gas,	1
Suffocated by sudden outbursts of carbureted hydrogen gas,	10
Mine cars and machinery,	11
Explosions of powder,	3

Miscellaneous underground,	8
Miscellaneous over ground,	3
	52

Recapitulation of Non-Fatal Casualties.

Falls of coal and roof,	41
Explosions of carbureted hydrogen gas,	20
Mine cars and machinery,	27
Explosions of powder,	7
Premature blasts,	5
Kicked by mule,	2
Explosion of adualin caps,	1
Miscellaneous underground,	22
Miscellaneous over ground,	9
	134

Yours truly,

JAMES RYAN, *Inspector.*

ASHLAND, *February 25, 1888.*

Prosecutions for not Complying with the Mine Law.

On two occasions I was compelled to enter criminal proceedings to enforce compliance with the mine law.

The first was against William Hutchison, inside foreman of the Mineral Railroad and Mining Company's Luke Fidler Colliery, near Shamokin, Northumberland county, for neglecting to comply with sections three and four, article ten, of act of June 30, 1885.

Section 3 says: "The minimum quantity of air thus produced shall not be less than two hundred (200) cubic feet per minute for each and every person employed in any mine and as much more as circumstances may require."

Section 4 says: "The ventilating currents shall be conducted and circulated to and along the face of each and every working place throughout the entire mine in sufficient quantities to dilute, render harmless and sweep away smoke and noxious or dangerous gases to such an extent that all working places and traveling roads shall be in a fit state to work and travel therein." This he neglected to do. On the night of April 19, 1886, while Joseph Zoborney was at work driving an air hole from No. 1 Slope east gangway up to the No. 1 Slope counter gangway, he was overcome and suffocated by the foul air of the place at the time. The case was tried at the February court in 1887, and was continued to the following June argument court, after which his honor, William A. Rockafeller, president judge of Northumberland county, sentenced Hutchison to pay a fine of fifty dollars and the cost of prosecution.

The second was against Thomas M. Righter and John H. Reilly, superintendent and inside foreman of Mount Carmel Colliery, near Mount Carmel, Northumberland county, for not complying with rules 33 and 42 of act of June 30th, 1885. I consulted my attorney, William H. M. Oram, of Shamokin, in reference to the case. After looking over the aforesaid act he failed to see where Messrs. Righter and Reilly were guilty of a violation, after which I gave up the idea of entering a law suit. Some time afterwards I was served with a written notice (according to section 5 of Article 18), with the names of persons thereon who could prove a violation of the mine law. I then entered suit, a hearing was had before his Honor Judge Rockafeller, of Northumberland county, in February, 1887, the case was continued owing to the principal witness being at the time under medical treatment in the Miners' Hospital; on January 5, 1888, the case was to be called for trial again, but, on account of some misunderstanding in notifying the defense, and the same witness being in the Miners' Hospital, the case was continued.

Ventilation.

It affords me pleasure to state that the general condition of the collieries of the district are good. There have been nine (9) fans erected during the year. Two twenty-five-foot fans at the Lykens Valley Coal Company's Lykens Valley Colliery near Lykens, Dauphin county, to take the place of two smaller size fans. One twenty-five-foot fan in course of erection at the Summit Branch Railroad Company's Williamstown Colliery, to take the place of a fifteen-foot fan; one twelve-foot fan at S. S. Beckel & Co.'s Bellmon Colliery, to ventilate the north dip workings; one fifteen-foot fan at William L. Scott & Co.'s Hickory Ridge Colliery, to ventilate the north dip workings; one ten-foot fan at Smith and Keiser's Lancaster Colliery; one twenty-one-foot fan at J. Langdon and Company's Neilson Colliery; and one twenty-one-foot fan at the Philadelphia and Reading Coal and Iron Company's Henry Clay Colliery, and another fifteen-foot fan at the same company's Big Mountain Colliery, making a total of sixty-five (65) fans at the forty-four collieries. Together with this there are marked improvements made and are still being made in the mode of timbering main openings, such as slopes, gangways, and air courses, with heavier and stronger timbers, notably among the collieries where these improvements are made are individual collieries which have came into the possession of the Philadelphia and Reading Coal and Iron Company at the expiration of the lease. Also at the Mineral Railroad and Mining Company's Luke Fidler and Cameron Collieries, the Union Coal Company's Hickory Ridge and Pennsylvania Collieries.

List of applicants who received certificates of qualification in the

Sixth Anthracite Mining District, in 1887, as provided by Article 8 of act of June 30, 1885:

James Sterling, ... Shamokin, Northumberland county, Pa.
Paul Phillips, ... Girardville, Schuylkill county, Pa.
Benjamin Evans, . . . Girardville, Schuylkill county, Pa.
William J. Thomas, . . Girardville, Schuylkill county, Pa.
Thomas Bond, ... Williamstown, Dauphin county, Pa.
Alfred Ayres, ... Mount Carmel, Northumberland county, Pa.

Accidents.

I regret to state that the number of fatal casualities for the year were more than that of any year previous during my term of office with the exception of the years 1883 and 1884. The total number of casualities, fatal and non-fatal, have been reduced from that of previous years with the exception of the years 1885 and 1886. In comparing the number of tons of coal mined to each casuality, I find there have been on an average three thousand six hundred and twenty-eight tons more coal mined to each casuality than have been in previous years. Owing to the various ways by which accidents occur, it behooves both employés and those in charge of mines to exercise all the care and prudence possible to avert these sad occurrences. The total number of serious accidents during year 1887, were one hundred and eighty-six, fifty-two of which were fatal, leaving twenty-seven widows and ninety-nine orphans. The dangers attending the mining of coal are on the increase on account of the mines becoming deeper and more extensive. Taking this into consideration, if the number of tons of coal mined to each casualty compared favorably with past years, it is an improvement in the system of mining coal. We are however of the opinion that if more care and a closer observance of the mine law were had by those dependent on toil in the bowels of the earth for a livelihood, we would not be called upon as often to witness the sad sight of weeping wives and children for the loss of husbands and fathers.

The mine law makes provision against this as well as other classes of accidents, and until such time as the workingmen avail themselves of the provisions of the law, we cannot expect to be enabled to report this class of accidents things of the past. Hoping that in the near future men whose daily avocation is of such a dangerous character will realize that fact and use every precaution at their disposal to avert accidents to themselves and others intrusted to their care.

Falls of Coal and Roof.

There were sixteen (16) lives lost from the above causes during the year out of a total of fifty-two (52), being about thirty and ten thirteenths ($30\frac{10}{13}$) per cent. of the total number of fatal casualties. The number of non-fatal accidents from the same source was forty-one

(41), being thirty and forty-sixty-sevenths ($30\frac{40}{67}$) per cent. of the whole number of non-fatal casualities. In reviewing the accidents under this head, I found a large percentage of them due to negligence, or recklessness on the part of the victims themselves. In our inspection of the colleries of the district we came across instances of this character, some of those who rely too much on their own knowledge. In other cases I find a large percentage of this class of accidents due to incompetency or inexperience.

Electricity in use as a Motive Power for Underground Mine Haulage.

For several years electricity has been used to perform many of the duties formerly delegated to steam power and has been proven in Europe to be an effective, economical and safe power for use in mining operations. In this country aside, from the use of the telephone and electric signal bells, in mines, it has been applied to practical use as far as we know of in but one instance and that very recently. To the Lykens Valley Coal Company belongs the honor of being the first party to put this power to practical use at their Lykens Valley Colliery in Wiconisco township, Dauphin county, situated in the western end of the Southern Anthracite Coal Field of Pennsylvania. The system in use at this colliery is known as the Schlessinger system, it is at present used to run an electrical locomotive to haul coal from a water-level workings to the surface. The machinery employed there consists of a second-hand ordinary horizontal steam engine with an eighteen-inch cylinder and forty-eight-inch stroke attached to which is a belt wheel nine feet six inches in diameter, with a fifteen inch face. On this is a leather belt turning a smaller wheel on a counter shaft, which has attached to it an additional belt wheel. From this wheel another belt turns the smaller wheel fifteen inches in diameter on the dynamo or generator, which is similar in construction and principles of working to all those used in generating electricity. The space taken up by the dynamo is very small. Its dimensions in the clear being but three feet six inches by four feet high, including sixteen inches in heighth of foundations that extend above the floor of the generator room. The belt wheel on the engine is run at the rate of sixty revolutions per minute, and by the use of the small belt wheel on the counter shaft. The belt wheel on the dynamo runs at a speed of seven hundred revolutions per minute. The electricity is carried to the conductor by insulated copper wires, and is carried along this conductor as far as the locomotive is required to run. The conductor consists in this case of an ordinary iron T rail weighing about twenty-five pounds per yard, though a sixteen pound rail would answer the purpose as well. The conductor is carried outside along buildings and supports parallel to the track at a vertical height of about five feet and at a distance horizontally from the rail of about twenty inches.

It is insulated by having a small piece of ordinary sheet gum placed between the rail and support. And the rails are made continuous by being bolted together with fish plates between which and the rail are placed small pieces of sheet brass. Inside in the drift the conductor is carried along the low side and by being fastened to small props specially put in for this purpose where there is no timbering. At several points along the gangway as well as to the entrance of the drift, the height of the conductor above the rail of necessity varies, this is remedied by putting in a few feet of the conductor on an incline thus joining the sections at different heights. The return current is carried back by the regular rails of the track which are exactly similar to any ordinary track excepting that the rail joints are made continuous by fish plates and the additions of sheet brass between the fish plates and rails, as in the conductor, so as to prevent the breaking of the current when the road needs repairing. At distances of about three hundred feet the two rails of the track are connected by copper wire, so that if necessary to take out a rail the current is carried out by the rail on the other side of the track. The locomotive consists of an electric motor, to which the power is transmitted, and then converted from the electrical to the mechanical form, and by the turning of a small cog wheel, motion is imparted to an endless chain that turns a large cog wheel which in turn imparts motion to the driving wheels. Aside from the running gear the motor is very small and compact. The motor and running gear weigh 1,500 pounds, but to secure sufficient adhesion on the rails necessary to haul its load the locomotive is weighted down to 15,000 pounds. As the running gear is simple in its construction and made according to simple mechanical principles it can be made of almost any size as regards height and gauge, and the motor itself taking up so little space together with the fact that lead ballast, if necessary could be used, makes this style of locomotive especially adapted to work in small veins where the use of an ordinary locomotive would be impracticable. There is no trouble to make this style of a motor small enough for any purpose, as the greatest space taken up in its construction, when specially designed for small openings is the space reserved for the driver or engineer. The locomotive can be run by any young man of average intelligence, and is controlled by levers that are worked similar to those of a steam engine. The force of the electrical current carried through the motor is regulated by the driver or engineer, who is guided by a small electric light that burns either dimly or brightly according to the strength of the current. That portion of the workings in which the locomotive is working is a water-level opening or drift in the "Whites" vein, which is a small vein varying from three and one-half feet to five feet thick, lying from eighteen to twenty yards square, with the measures above what is known as the Upper or Big Lykens Valley vein. The locomotive runs in the drift a distance of about 4,800 feet, and thence through

a tunnel sixty yards long, connecting this gangway with the workings in the Upper and Lower Lykens Valley veins to a turnout in the gangway in the Lower Lykens Valley vein, at about 1,200 feet from the tunnel, there is a twenty-foot 90° and a thirty-foot 90° curve at the junction of the tunnel with the gauge. The gauge of the track is forty inches, and the grade three inches in one hundred feet in favor of the load along most of the way, but there are several places where, for some distance, this grade is reversed and at other places the road is a dead level. The load that is to be hauled consists of twenty-one mine cars, of about ninety cubic feet capacity each, and the largest load the motor has already taken out consisted of thirty-one cars weighing almost one hundred and fifty tons. The length of the train was about three hundred and eighty feet, and the distance between the above-mentioned curves being only one hundred and eighty feet, the motor had to haul this train for a distance of two hundred feet around both curves at the the same time.

The dynamo in use is of fifty horse-power capacity, but only thirty horse-power is transmitted to the motor on the locomotive. The engine running the generator has power enough to run another dynamo of same size, and each of these in turn is capable of furnishing motor power to two locomotives of same size as the one now in use. The room to contain this machinery on the surface need not cover an area larger than thirty feet by fifteen feet, and there will be ample room. Outside of its greater economy the electric mine locomotive has other great advantages over the steam locomotive, and over mules; its greatest feature is the entire absence of smoke, steam and gas, the non-consumption of oxygen. For this reason the Lykens Valley Coal Company, I am informed, have decided to replace a steam locomotive now used in hauling coal from the west side lower level of the Short Mountain slope by a second electric motor which will in a short time be in operation.

The following table shows the relation between the roads in Europe and America:

Where Running.	System.	Length.	Speed.	Weight of locomotive.	Largest weight pulled.
		Feet.	*Miles.*	*Lbs.*	*Tons.*
Zankasoda, ...	Semens & Halski, . .	2,028	6	3,520	13½
Paulus and Hohenzoller, .	Semens & Halski, . .	2,460	. . . .	4,200	. . . .
Lykens Valley, ...	Shlessinger, ...	6,300	6 to 8	15,000	150

Number of fatal accidents and amount of coal produced per life lost by the different companies and individual firms during year 1887.

OPERATORS.	Number of tons of coal produced.	Number of fatal casualties.	Amount of coal produced per life lost.
Philadelphia and Reading Coal and Iron Co., .	2,075,913.00	30	69,197 1/10 tons.
Mineral Railroad and Mining Company, ...	239,860.01	2	119,930 "
Union Coal Company, ...	521,614.07	2	280,807 "
Summit Branch Railroad Company, ...	388,291.04	1	388,291 "
Lykens Valley Coal Company, ...	237,417.00	3	79,139 "
Lewis A. Riley & Co., ...	395,341.14	3	131,780 1/3 "
Individual firms, ...	879,185.05	11	79,926 "

COMPARATIVE STATEMENT of casualties, coal tonnage and employés of the Sixth Anthracite Mining District of Pennsylvania for the years 1883, 1884, 1885, 1886 and 1887.

Years.	Killed.	Injured.	Total.	Total number of employés.	Number of employés to each casualty.	Total number of tons coal mined.	Number of tons of coal mined to each fatal casualty.	Number of tons of coal mined to each non-fatal casualty.	Number of tons of coal mined to each casualty.	Number of tons of coal mined to each employé.
1883,	64	170	234	14,588	62.4	4,813,162.12	75,205.14	28,312.15	20,141.14	329.18
1884,	56	174	230	15,568	67.3	4,535,051.13	80,983.01	26,063.10	19,717.12	291.06
1885,	45	136	181	14,202	78.4	4,205,420.17	93,453.15	30,922.04	23,234.07	296.02
1886,	31	122	153	14,414	94.3	3,714,519.11	119,823.04	30,445.04	24,277.18	243.16
1887,	52	134	186	14,793	79.5	4,737,622.11	91,108.06	35,355.10	25,471.08	320.05

TABLE showing the grand total of employés, mules, steam-boilers and powder used, tons of coal mined and shipped, fatal and non-fatal casualties in the Sixth Anthracite District for the year ending December 31, 1887.

Names of Counties and parts of Counties in the District.	Total number of employés.	Total number of mules and horses employed.	Total number of steam-boilers in use.	Total number of kegs of powder used.	Total number of tons of coal mined.	Total number of tons of coal shipped.	Total number of fatal casualties.	Total number of non-fatal casualties.
Northumberland county,	9,320	1,028	493	72,811	2,844,386.12	2,613,486.14	26	84
Schuylkill county,	1,317	208	127	4,736	527,210.18	505,615.15	14	13
Columbia county,	1,944	207	146	21,329	740,316.17	703,707.18	8	21
Dauphin county,	2,212	264	169	14,748	625,708.04	536,420.09	4	16
Total,	14,793	1,707	935	113,624	4,737,622.11	4,359,230.16	52	134

TABLE No. 1.—Showing location of collieries in the Sixth Anthracite Mine District.

NAME OF COLLIERY.	NAME OF OPERATOR.	LOCATION—COUNTY.	NAME OF SUPERINTENDENT.	POST-OFFICE ADDRESS.
Mt. Carmel shaft,	Phila. & Reading Coal and Iron Co.,	Mt. Carmel twp., Northumb'd co.,	Monroe T. Schreffler,	Ashland, Schuylkill county.
East,	do. do. do.	Big Mine Run, Schuylkill county,	John Carl,	Mt. Carmel, Northumb'd county.
Bear Valley,	do. do. do.	Coal twp., Northumberland co.,	William Boothe,	Shamokin, Northumb'd county.
Burnside,	do. do. do.	do. do.	do.	do. do.
Sterling,	do. do. do.	do. do.	do.	do. do.
Peerless,	do. do. do.	do. do.	do.	do. do.
Henry Clay,	do. do. do.	do. do.	do.	do. do.
Big Mountain,	do. do. do.	do. do.	do.	do. do.
Buck Ridge,	do. do. do.	do. do.	do.	do. do.
Reliance,	do. do. do.	Mt. Carmel twp., Northumb'd co.,	John Carl,	Mt. Carmel, Northumb'd county.
Locust Gap,	do. do. do.	do. do.	Monroe T. Schreffler,	Ashland, Schuylkill county.
Locust Spring,	do. do. do.	do. do.	do.	do. do.
Monitor,	do. do. do.	do. do.	do.	do. do.
Merriam,	do. do. do.	do. do.	John Carl,	Mt. Carmel, Northumb'd county.
North Franklin No. 1,	do. do. do.	Trevorton, Northumberland co.,	William Boothe,	Shamokin, Northumb'd county.
North Franklin No. 2,	do. do. do.	do. do.	do.	do. do.
Keystone,	do. do. do.	Locust Dale, Schuylkill county,	John Carl,	Mt. Carmel, Northumb'd county.
Tunnel,	do. do. do.	Ashland, do.	do.	do. do.
North Ashland,	do. do. do.	Conyngham twp., Columbia co.,	do.	do. do.
Preston No. 2,	do. do. do.	Girardville, Schuylkill county,	Elijah Gregory,	Girardville, Schuylkill county.
Preston No. 3,	do. do. do.	do. do.	do.	do. do.
Williamstown,	Summit Branch Railroad Company,	Williamstown, Dauphin county,	Thomas M. Williams,	Lykens, Dauphin county.
Short Mountain and Lykens Valley,	Lykens Valley Coal Company.	Wiconisco, Dauphin county,	do. do.	do. do.
Cameron,	Mineral Railroad and Mining Co.,	Shamokin, Northumberland co.,	Edwin Ludlow,	Shamokin, Northumb'd county.
Luke Fidler,	do. do.	do. do.	do.	do. do.
Hickory Swamp,	Union Coal Company,	Coal twp., Northumberland co.,	Holden Chester,	do. do.
Hickory Ridge,	do. do.	do. do.	do.	do. do.
Pennsylvania,	do. do.	do. do.	do.	do. do.
Lancaster,	Smith & Keiser,	do. do.	William Smith,	do. do.
Garfield,	Garfield Coal Company, Limited,	do. do.	William H. Douty,	do. do.
Royal Oak,	Tillet & Brother,	Shamokin, Northumberland co.,	Jonas Tillet,	do. do.
Neilson shaft,	J. Langdon & Co.,	do. do.	A. H. Storrs,	do. do.
Excelsior,	Excelsior Coal Mining Company,	Coal twp., do.	A. Robertson,	do. do.
Enterprise,	Enterprise Coal Company,	do. do.	F. J. Morgan,	Excelsior, Northumb'd county.
Mount Carmel,	Thomas M. Righter & Co.,	Mt. Carmel twp., Northumb'd co.,	Thomas M. Righter,	Mt. Carmel, Northumb'd county.
Big Mine Run,	Jeremiah Taylor Estate,	Big Mine Run, Schuylkill county.		
Logan,	Lewis A. Riley & Co.,	Centralia, Columbia county,	Edward Reese,	Centralia, Columbia county.
Centralia,	do. do.	do. do.	do.	do. do.
Hazle Dell,	do. do.	do. do.	do.	do. do.
Continental,	Lehigh Valley Coal Company,	Conyngham, Columbia county,	David P. Brown,	Lost Creek, Schuylkill county.
Morris Ridge,	May, Troutman & Co.,	do. do.	James May,	Shamokin, Northumb'd county.
Bellmon,	S. S. Bickel & Co.,	do. do.	Tobias Bickel,	Mt. Carmel, Northumb'd county.

TABLE No. 2.—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employés, number of persons killed and injured, number of kegs of powder used, &c., in the Sixth Anthracite Mining District for the year ending December 31, 1887.

Names of Collieries.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	No. days worked.	No. persons employed.	No. fatal accidents.	No. non-fatal accidents.	No. kegs powder used.	No. steam boilers.	No. horses and mules.	No. mine locomotives.
North Franklin No. 2,	Trevorton, Northumberland county,	99,859.08	95,103.11	191 11/20	240	1	1	2,050	10	39	1
Bear Valley,	Coal township, do. do.	142,795.04	135,995.09	242 13/20	216	. . .	2	2,565	22	39	1
Burnside,	do. do. do.	114,012.17	108,583.02	241 1/4	456	2	8	2,940	12	43	. . .
Henry Clay,	do. do. do.	271,550.00	258,619.12	260 1/20	374	. . .	3	8,200	32	172	2
Buck Ridge,	do. do. do.	. . . . .	. . . . .	. . . . .	21	. . .	. . .	. . . . .	16	3	. . .
Alaska Shaft,	Mt. Carmel twp., do. do.	201,714.10	192,109.06	219 8/20	535	. . .	3	3,850	33	69	2
Locust Gap,	do. do. do. do.	146,591.12	139,611.05	218 13/20	245	. . .	. . .	3,248	16	29	1
Locust Spring,	do. do. do. do.	131,202.14	125,031.15	241 17/20	425	1	5	4,275	20	49	1
Reliance,	do. do. do. do.	122,525.12	116,691.05	239 1/4	268	2	. . .	2,950	16	36	. . .
Merriam,	do. do. do. do.	179,604.15	171,052.03	239 6/20	397	4	. . .	3,125	26	47	. . .
Potts,	Conyngham township, Columbia county,	. . . . .	. . . . .	. . . . .	1	. . .	1	. . . . .	. . .	. . .	. . .
Keystone,	Locust Dale, Schuylkill county,	92,386.07	87,986.10	235 3/4	195	. . .	. . .	130	16	31	. . .
Locust Run,	Conyngham township, Columbia county,	. . . . .	. . . . .	. . . . .	9	. . .	. . .	. . . . .	15	. . .	. . .
Bast,	Big Mine Run, Schuylkill county,	89,679.14	85,409.04	231 3/4	245	5	2	1,219	24	47	. . .
North Ashland,	Conyngham township, Columbia county,	160,587.04	152,940.06	247 9/20	304	1	2	2,550	24	44	1
Preston No. 2,	Girardville, Schuylkill county,	. . . . .	. . . . .	. . . . .	9	. . .	. .	. . . . .	14	5	. . .
Preston No. 3,	do. do. do.	106,051.10	101,001.02	263 8/20	203	. . .	5	300	22	41	1
Monitor,	Mt. Carmel township, Northumberland county,	139,111.13	132,439.13	215 11/20	313	1	4	3,000	16	47	. . .
Tunnel,	Ashland, Schuylkill county,	78,160.00	74,438.02	193 15/20	167	6	3	50	26	34	. . .
Big Mountain,	Coal township, Northumberland county,	. . . . .	. . . . .	. . . . .	640	4	13	. . . . .	12	. . .	. . .
Sterling,	do. do. do.	. . . . .	. . . . .	. . . . .	153	. . .	3	. . . . .	12	. . .	. . .
Peerless,	do. do. do.	. . . . .	. . . . .	. . . . .	169	3	3	. . . . .	. . .	. . .	. . .
North Franklin No. 1,	Trevorton, do. do.	. . . . .	. . . . .	. . . . .	. . .	. . .	. . .	. . . . .	2	. . .	. . .
Williamstown,	Williamstown, Dauphin county,	388,291.04	338,926.13	301 7/10	1,194	1	10	10,856	76	134	4
Short Mountain and Lykens Valley,	Wiconisco twp., do. do.	237,417.00	197,493.16	283 2/10	1,018	3	6	3,892	93	130	*3

Note.—The Big Mountain, Peerless and Sterling coal is prepared in the Henry Clay Breaker.
* Also 1 electric motor.

TABLE No. 2—Continued.

NAMES OF COLLIERIES.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	No. days worked.	No. persons employed.	No. fatal accidents.	No. non-fatal accidents.	No. kegs powder used.	No. steam boilers.	No. horses and mules.	No. mine locomotives.
Cameron,	Shamokin, Northumberland county,	116,908.15	101,680.15	114	867	1	4	5,997	39	87	. . .
Luke Fidler,	do. do. do.	122,9[illegible].06	113,701.06	139 1/6	532	1	2	2,381	30	40	1
Hickory Swamp,	Coal twp., do. do.	87,543.13	81,722.13	233 3/4	386	1	4	2,442	15	38	. . .
Hickory Ridge,	do. do. do.	48,943.17	41,548.17	240 1/4	209	. . .	. . .	1,821	18	19	. . .
Lancaster,	do. do. do.	21,968.03	21,117.18	210 1/2	86	. . .	1	1,093	3	13	. . .
Garfield,	do. do. do.	26,491.00	26,101.05	171 5/6	115	. . .	1	986	10	13	. . .
Excelsior,	do. do. do.	188,115.01	177,467.01	274 1/6	889	1	2	5,000	21	43	. . .
Enterprise,	do. do. do.	124,530.00	116,349.00	250 3/4	706	. . .	1	2,713	33	44	*2
Pennsylvania,	Mt. Carmel township, Northumberland county,	385,126.17	291,126.17	253 2/6	832	1	16	8,353	40	88	*2
Mount Carmel,	do. do. do. do.	153,269.05	145,970.15	234 5/6	316	. . .	. . .	4,561	21	39	*1
Royal Oak,	Shamokin do. do. do.	245.11	147.01	100	4	. . .	. . .	6	1	1	. . .
Neilson,	do. do. do. do.	19,254.19	15,316 05	299	356	3	8	1,425	14	30	. . .
Bellmon,	Conyngham do. Columbia county,	93,482.02	92,306 02	218 2/6	313	3	5	2,385	15	29	. . .
Morris Ridge,	do. do. do. do.	90,905.17	87,905.17	257 1/2	237	1	3	2,249	8	21	. . .
Logan,	Centralia do. do. do.	205,916.06	194,606.16	240 3/6	533	2	4	8,663	32	48	*1
Centralia,	do. do. do. do.	189,425.08	175,948.17	242 2/6	532	. .	2	5,482	30	64	*1
Hazle Dell,†	do. do. do. do.	. . . . .	. . . . .	. . . . .	. . . . .	1	4	. . . . .	. . .	. . .	. . .
Continental,‡	Conyngham do. do. do.	. . . . .	. . . . .	. . . . .	15	. . .	. . .	. . . .	22	1	*1
Big Mine Run,	Big Mine Run, Schuylkill county,	160,933.07	156,780.17	249 3/4	498	3	3	3,037	25	50	*2
Total,		4,737,6[illegible].11	4,359,230.16	227 3/4	14,793	52	134	113,624	935	1,707	28

*Outside. †Coal tonnage, etc., included in Centralia Colliery report. ‡Colliery idle during year. Pumping water.

TABLE No. 3.—Showing the number of each class of employés at each colliery in the Sixth Anthracite Mine District, during the year 1887.

NAMES OF COLLIERIES.	LOCATION.	NUMBER OF PERSONS EMPLOYED INSIDE.							NUMBER OF PERSONS EMPLOYED OUTSIDE.							GRAND TOTALS—INSIDE AND OUTSIDE.
		Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	
N. Franklin No. 2,	Trevorton, Northumberland county,	1	99	27	. . .	19	4	150	1	5	8	74	. . .	2	90	240
Bear Valley,	Coal township, do. do.	1	100	11	. . .	14	8	134	1	4	13	63	. . .	1	82	216
Burnside,	do. do. do.	1	210	75	. . .	24	10	320	1	6	14	114	. . .	1	136	456
Henry Clay,	do. do. do.	1	9	13	. . .	1	. . .	24	3	20	32	293	. . .	2	350	374
Buck Ridge,	do. do. do.	. . .	2	6	. . .	. . .	. . .	8	1	2	10	. . .	. . .	. . .	13	21
Alaska Shaft,	Mt. Carmel twp., do. do.	2	213	40	. . .	66	21	342	2	8	16	166	. . .	1	193	535
Locust Gap,	do. do. do.	1	123	4	. . .	14	7	149	1	4	13	77	. . .	1	96	245
Locust Spring,	do. do. do.	1	194	86	. . .	21	6	308	1	5	15	95	. . .	1	117	425
Reliance,	do. do. do.	1	107	19	. . .	23	3	153	1	5	8	100	. . .	1	115	268
Merriam,	do. do. do.	1	159	39	. . .	23	20	242	2	6	18	128	. . .	1	155	397
Potts,	Conyngham twp., Columbia county,	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	. . .	. . .	. . .	1	1
Keystone,	Locust Dale, Schuylkill county,	1	51	15	. . .	10	13	90	1	4	13	86	. . .	1	105	195
Locust Run,	Conyngham twp., Columbia county,	. .	. . .	. . .	. . .	. . .	. . .	. . .	1	. . .	8	. . .	. . .	. . .	9	9
Bast,	Big Mine Run, Schuylkill county,	2	92	23	. . .	15	10	142	1	6	17	78	. . .	1	103	245
North Ashland,	Conyngham twp., Columbia county,	1	93	26	. . .	18	5	143	1	11	19	129	. . .	1	161	304
Preston No. 2,	Girardville, Schuylkill county,	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1	6	. . .	. . .	1	9	9
Preston No. 3,	do. do.	1	74	1	. . .	16	7	99	1	4	18	80	. . .	1	104	203
Monitor,	Mt. Carmel twp., Northumberland co.,	2	126	39	. . .	19	7	193	1	5	9	104	. . .	1	120	313
Tunnel,	Ashland, Schuylkill county,	1	30	19	. . .	14	9	73	1	5	22	65	. . .	1	94	167
Big Mountain,	Coal twp., Northumberland county,	5	358	180	. . .	66	26	635	. . .	. . .	5	. . .	. . .	. . .	5	640
Stirling,	do. do. do.	1	104	21	. . .	7	8	141	1	3	8	. . .	. . .	. . .	12	153
Peerless,	do. do. do.	. . .	126	25	. . .	16	. . .	167	. . .	. . .	2	. . .	. . .	. . .	2	169
Williamstown,	Williamstown, Dauphin county,	1	317	113	240	107	25	803	1	20	31	178	158	3	391	1,194
Short Mountain and Lykens Valley,	Wiconisco twp., do. do.	4	233	163	141	75	28	644	3	22	42	108	196	3	374	1,018
Cameron,	Shamokin, Northumberland county.	3	304	31	164	46	19	567	1	15	21	138	121	4	300	867
Luke Fidler,	do. do. do.	2	139	52	99	40	10	342	1	8	12	104	62	3	190	532
Hickory Swamp,	Coal twp., do. do.	1	138	31	51	16	5	244	1	5	7	62	64	3	142	386
Hickory Ridge,	do. do. do.	1	67	15	26	21	4	134	1	6	10	30	57	1	105	239
Lancaster,	do. do. do.	1	40	6	6	4	. .	57	1	1	2	19	6	. . .	29	86
Garfield,	do. do. do.	1	41	10	13	3	2	70	1	2	6	20	14	2	45	115

TABLE No. 3—Continued.

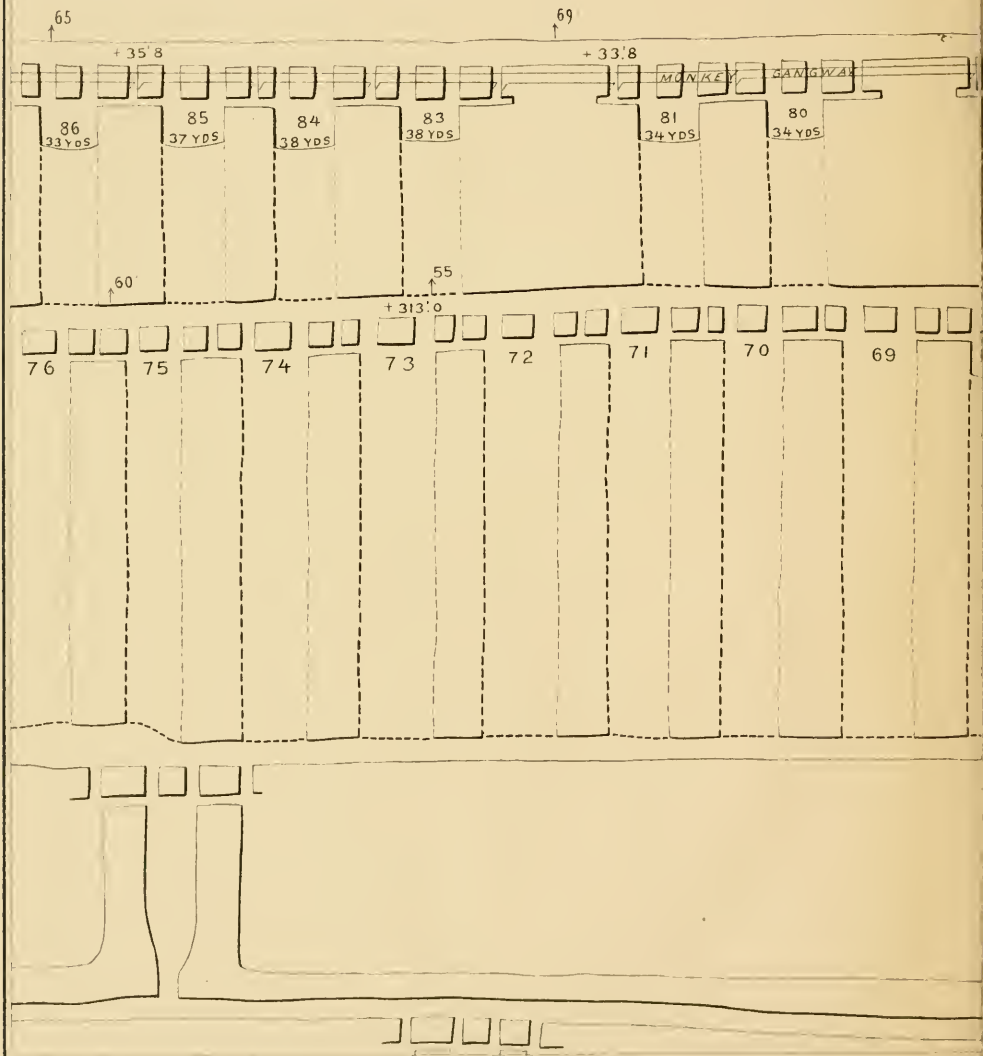
NAMES OF COLLIERIES.	LOCATION.	NUMBER OF PERSONS EMPLOYED INSIDE.							NUMBER OF PERSONS EMPLOYED OUTSIDE.							Grand totals—inside and outside.
		Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	
Excelsior,	Coal twp., Northumberland county,	2	143	65	18	18	3	249	2	5	8	74	49	2	140	389
Enterprise,	do. do. do.	2	178	137	130	15	6	474	2	9	17	80	120	4	232	706
Pennsylvania,	Mt. Carmel twp., do. do.	1	323	92	123	39	27	605	1	7	16	95	107	1	227	832
Mount Carmel,	do. do. do.	1	137	35	28	20	8	229	1	5	12	69	36	4	127	356
Royal Oak,	Shamokin, do. do.	...	2	....	...	...	...	2	...	...	1	....	...	1	2	4
Neilson,	do. do. do.	1	126	18	76	9	6	236	1	8	15	53	40	3	120	356
Bellmon,	Conyngham twp., Columbia county,	2	90	20	63	8	7	190	1	7	11	51	49	4	123	313
Morris Ridge,	do. do. do.	1	65	36	40	5	2	149	1	3	4	56	21	3	88	237
Logan,	Centralla, do. do.	2	151	50	86	19	11	319	1	13	20	97	79	4	214	533
Centralla,	do. do. do.	2	122	48	96	17	7	292	1	10	21	103	101	4	240	532
Hazle Dell,	do. do. do.	Number of employes included in the Centralia Colliery report.														
Continental,	Conyngham twp., do. do.	1	1	....	2	..	...	4	1	2	6	....	3	...	11	15
Big Mine Run,	Big Mine Run, Schuylkill county, . .	1	142	40	72	19	12	286	1	6	10	134	58	3	212	498
Total,	.....	54	5,629	1,634	. .	867	316	9,409	46	258	547	3,123	. . .	70	5,384	14,793

Sketch-Showing Portion Of The Workings On The Mammoth Vein West Gangway Third Lift At Tunnel Colliery.

Scale 1 Inch = 100 Feet.

F. P. Weiser, Ass't. Eng'r.

P. & R. C. & I. Co.



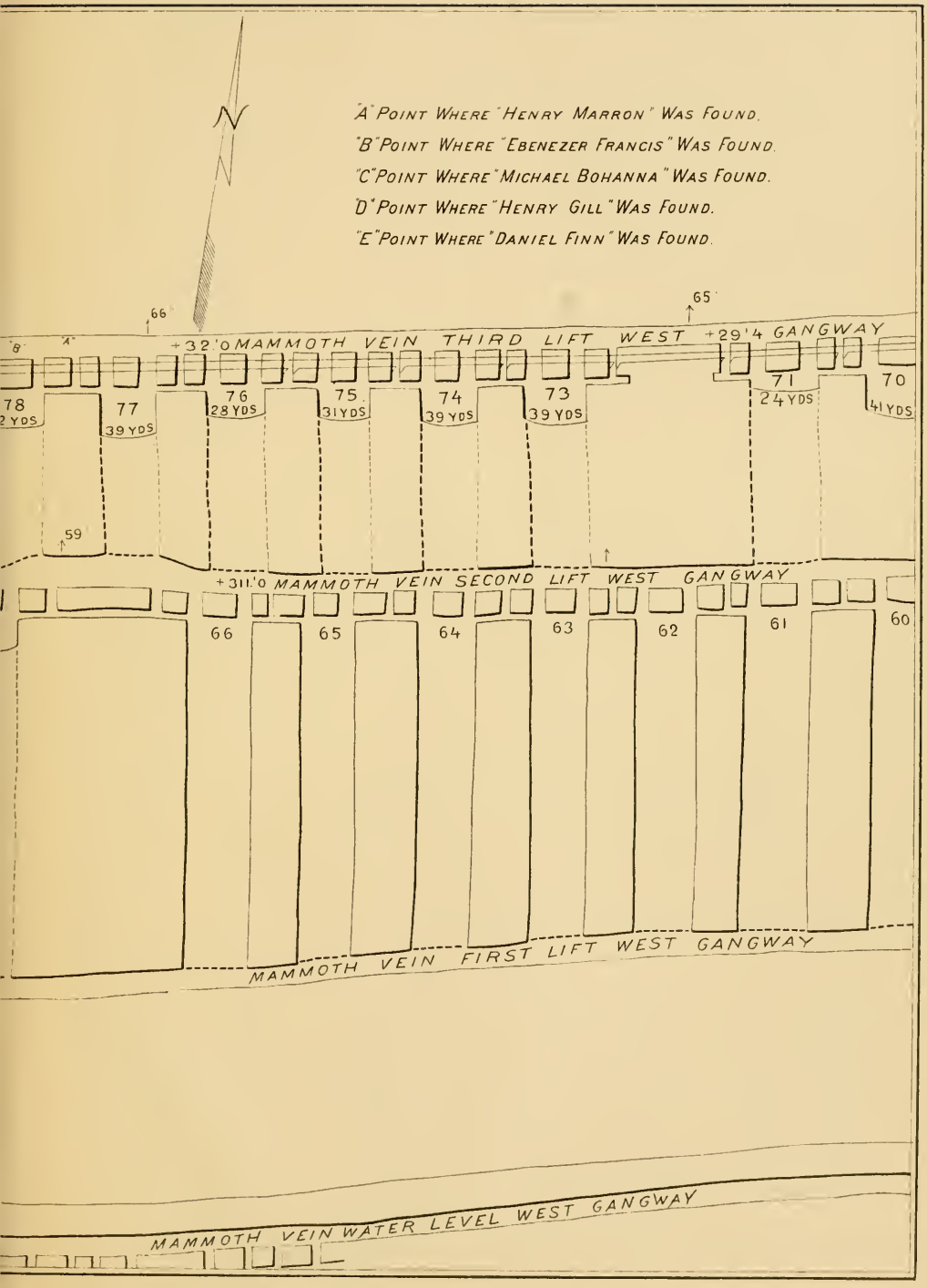

"A" Point Where "Henry Marron" Was Found.
"B" Point Where "Ebenezer Francis" Was Found.
"C" Point Where "Michael Bohanna" Was Found.
"D" Point Where "Henry Gill" Was Found.
"E" Point Where "Daniel Finn" Was Found.
N
66
65
+32'0 MAMMOTH VEIN THIRD LIFT WEST
+29'4 GANGWAY
78
2 YDS
77
39 YDS
76
28 YDS
75
31 YDS
74
39 YDS
73
39 YDS
71
24 YDS
70
41 YDS
59
+311'0 MAMMOTH VEIN SECOND LIFT WEST GANGWAY
66
65
64
63
62
61
60
MAMMOTH VEIN FIRST LIFT WEST GANGWAY
MAMMOTH VEIN WATER LEVEL WEST GANGWAY

TABLE No. 4.—List of fatal accidents occurring in and about the mines of the Sixth Anthracite Mine District for the year ended December 31, 1887.

Date of accident.	NAME OF PERSON.	Occupation.	Age.	Widow.	No. of children.	Name of Colliery.	Location.	Nature and Cause of Accident.
Jan. 3,	Thos. Thompson,	Miner,	36	1	3	Reliance,	Mt. Carmel, North'd co.,	Killed by a fall of bone coal.
Feb. 24,	Henry Nagle,	Starter,	23			Tunnel,	Ashland, Schuylkill county,	Suffocated by a rush of coal, dirt and water.
Mar. 14,	Patrick Maloney,	Miner,	21			Luke Fidler,	Shamokin, North'd county,	Killed by a fall of coal.
14,	Hugh Breslin,	Starter,	31			Bellmon,	Conyngham twp, Col'bia co.,	Killed by an explosion of dualin powder.
22,	William Walter,	Miner,	49	1	9	Williamstown,	Williamstown, Dauphin co.,	Died from injuries received on the 12th by a fall of coal.
Apr. 5,	John S. Wert,	Chute boy,	16			Logan,	Centralia, Columbia county,	Died from injuries received same day by being caught in machinery.
27,	Henry Marron,	Loader,	28	1		Tunnel,	Ashland, Schuylkill county,	Suffocated by a sudden outburst of coal and C. H. gas.
27,	Ebenezer Francis,	do.	33			do.	do. do.	do. do. do. do.
27,	Mich'l Bohannon,	Miner,	25	1	2	do.	do. do.	do. do. do. do.
27,	Daniel Finn,	do.	35	1	7	do.	do. do.	do. do. do. do.
27,	Henry Gill,	Fire-boss,	41	1	5	do.	do. do.	do. do. do. do.
May 2,	Edward Miller,	Miner,	40	1	2	Reliance,	Mt. Carmel, North'd county,	Killed by a fall of top coal.
23,	James Doyle,	L. engineer,	32	1	4	Locust Spring,	Locust Gap, North'd county,	Died from injuries received on the 14th by being crushed between the bumpers of empty mine cars and locomotive boiler.
June 2,	Martin Deane,	Starter,		1	9	North Ashland,	Dark Corner, Columbia co.,	Killed by his head being caught between side of mine cars and low side of gangway leg.
23,	John Cook,	Ast. mineboss,	53	1	6	Lykens Valley,	Lykens, Dauphin county,	Suffocated by a rush of dirt, slate and rock.
25,	Adam Starkosa,	Miner,	37	1	2	Hickory Swamp,	Coal twp., North'd county,	Died from injuries received on the 18th by being burned by an explosion of carbureted hydrogen gas.
25,	Wm. H. Chaundy,	Laborer,	41	1		Peerless,	Shamokin, North'd county,	Died from injuries received May 27th while passing over a trestling with two other men, a mule and a small car of ashes the trestling fell, precipitating them a distance of twelve or fourteen feet.
July 13,	Charles Leader,	Miner,	45	1	2	Excelsior,	Excelsior, North'd county,	Killed by a fall of top coal.
20,	John Donahoe,	do.	40	1	6	Big Mine Run,	Big Mine Run, Schuylkill co.,	Killed by a fall of top coal.
23,	A. Lezezyneskie,	do.	25			Peerless,	Shamokin, North'd county,	Killed by a fall of top slate.
26,	Louis Marnenelli,	do.	41			Big Mountain,	do. do.	Killed by a fall of coal and top slate.
Aug. 3,	Michael Kutzko,	Out. laborer,	60	1	2	Burnside,	Coal twp., North'd county,	Killed by left arm being cut off and otherwise injured by being caught between wire rope and pulley.
5,	Albert Lockout,	Driver,	16			Big Mountain,	do. do.	Died from injuries received on June 20th by being caught between top of gangway and top of empty mine car.
13,	John Taylor,	Miner,	20			Lykens Valley,	Wiconisco, Dauphin county,	Killed by a fall of top rock.
20,	William Kline,	Carpenter,	42	1	2	Cameron,	Shamokin, North'd county,	Killed by falling from dump chute in breaker down on to dirt road, a distance of about forty-nine feet.

TABLE No. 4—Continued.

Date of accident.	NAME OF PERSON.	Occupation.	Age.	Widow.	No. of children.	Name of Colliery.	Location.	Nature and Cause of Accident.
Aug. 23,	Richard Miller,	Miner,	21			Pennsylvania,	Mt. Carmel twp., North'd co.,	Killed by a fall of top rock.
30,	Adam Rajas,	do.	28			Morris Ridge,	Conyngham twp., Col'bia co.,	Died from injuries received July 20th while attempting to get up into his chute off gangway he fell back on gangway his head striking the gangway low side rail.
Sept. 14,	Geo. Kandridge,	Laborer,	37	1	2	Lykens Valley,	Wiconisco, Dauphin county,	Killed by a mine car door falling on him.
16,	Joseph Swadies,	Miner,	28			Burnside,	Coal twp., North'd county,	Killed by being caught between top of mine and chute.
19,	John Sylack,	do.	34	1	3	Peerless,	Shamokin, North'd county,	Killed by a fall of top slate.
23,	Stephen Yatka,	Laborer,	26	1		Big Mine Run,	Big Mine Run, Schuylkill co.,	Killed by a fall of top coal (bone).
29,	John Lasoski,	do.	27			Big Mountain,	Coal twp., North'd county,	Killed by a fall of top slate.
Oct. 1,	Fred. Oestrick,	Fire-boss,	38	1	6	Bast,	Big Mine Run, Schuylkill co.,	Suffocated by carbureted hydrogen gas displaced by a fall of roof.
1,	John Corcoran,	Starter,	34			do.	do. do.	Suffocated by carbureted hydrogen gas displaced by a fall of roof.
1,	John McDonnell,	Loader,	22			do.	do. do.	Suffocated by carbureted hydrogen gas displaced by a fall of roof.
1,	John Gillham,	Driver,	20			do.	do. do.	Suffocated by carbureted hydrogen gas displaced by a fall of roof.
1,	Patrick Cully,	Doorboy,	16			do.	do. do.	Suffocated by carbureted hydrogen gas displaced by a fall of roof.
1,	Patrick Monroe,	do.	17			Merriam,	Locust Summit, North'd co.,	Died from injuries received September 14th by being crushed between door-frame and side of mine car.
20,	Wladysl. Zubrus,	Laborer,	29			Bellmon,	Conyngham twp., Col'bia co.,	Died from injuries received on the 18th by being crushed between mine car and side of gangway.
27,	James Sweeney,	Miner,	26			Monitor,	Locust Gap, North'd county,	Killed by a fall of coal.
Nov. 1,	David B. Morgan,	do.	27	1	1	Bellmon,	Conyngham twp., Col'bia co.,	Killed by being struck by a piece of timber while riding up slope.
4,	Frank Switka,	do.	31			Merriam,	Locust Summit, North'd co.,	Died from injuries received same day by a fall of partition stone.
7,	And. Schraedley,	Outside boss,	62	1	4	do.	do. do.	Killed by his head being crushed between the two main coal screen belts and pulley in breaker.
10,	W. S. Stricker,	Miner,	42	1	6	Nellson,	Shamokin, North'd co.,	Died from injuries received same day by an explosion of powder.
10,	A. S. Stricker,	Laborer,	17			do.	do. do.	Died from injuries same day by same explosion.
17,	Ter. McManus,	Miner,	26	1	2	do.	do. do.	Died from injuries received on the 14th by falling down shaft a distance of about forty feet.
26,	John Bengle,	Laborer,	32	1	3	Big Mine Run,	Big Mine Run, Schuylkill co.,	Killed by a fall of roof.

29,	Henry Dahm,	Miner,	44	1	6	Merriam,	Locust Summit, North'd co.,	Died from injuries received on same day by a fall of top coal.
Dec. 1,	Peter Moran,	Starter,	38	1	5	North Franklin No. 2,	Trevorton, North'd county,	Killed by a rush of loose rock while inside of battery drilling a hole in a lump of rock.
19,	George Gilda,	Driver,	20			Big Mountain,	Coal twp., North'd county,	Died from injuries received same day by being crushed between empty mine cars and coal chute.
25,	Wm. Monaghan,	Out. driver,	20			Hazle Dell,	Centralia, Columbia county,	Died from injuries received on the 23d by being crushed between mule and loaded mine car.
31,	Charles Phillips,	Loader,	24			Logan,	do. do.	Killed by being crushed between a pole and chute prop while starting the coal in chute.

TABLE No. 5.—List of non-fatal accidents occurring in and about the mines of the Sixth Anthracite Mine District for the year ended December 31, 1887.

Date of accident.	Name of Person.	Occupation.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 10,	James Colston,	Outside laborer,	Big Mountain,	Northumberland co.,	Head crushed by being caught between mine cars.
13,	David T. Evans,	Miner,	Big Mine Run,	Schuylkill co.,	Leg broken by a fall of coal.
14,	John Smegelskie,	do.	Burnside,	Northumberland co.,	Ankle dislocated by a piece of coal falling on it.
15,	John Lewis,	Outside laborer,	Williamstown,	Dauphin co.,	First joint of third finger taken off by being caught in cogs of drill press in machine shop.
18,	Elmer Mench,	Miner,	Cameron,	Northumberland co.,	Injured about shoulders by a fall of coal.
19,	Joseph Bergen,	Slate-picker,	Monitor,	do.	Arm broken by falling over a slate box while going from stove to his chute in breaker.
22,	George Stokes,	Outside laborer,	Preston No. 3,	Schuylkill co.,	Scull fractured by being caught between mine cars.
29,	John Klinedine,	Night watchman,	Potts,	Columbia co.,	Head and body bruised by falling off trestling about 20 feet.
Feb. 1,	Patrick Hemmesy,	Miner,	Big Mountain,	Northumberland co.,	Burned on face, neck and hands by explosion of C. H. gas.
1,	Martin Dalton,	Miner,	Big Mountain,	Northumberland co.,	Burned on face, neck and hands by explosion of C. H. gas.
1,	Anthony Daniels,	Miner,	Morris Ridge,	Columbia co.,	Burned by an explosion of a keg of powder.
4,	George Landon,	Top of slope man,	Sterling,	Northumberland co.,	Cut and bruised about arms and body by being run over by mine car.
5,	John Wilson,	Miner,	Tunnel,	Schuylkill co.,	Injured by a fall of coal.
12,	James McLane,	do.	Cameron,	Northumberland co.,	Hurt by coal falling on him.
22,	John Conaky,	Loader,	Pennsylvania,	do.	Hand badly hurt by being caught between a mine car and gangway leg; mine car jumped track.
23,	Edward Dolan,	Timber man,	North Ashland,	Columbia co.,	Shoulder hurt and ribs broken while riding down slope, a plank fell down slope from top, he jumped off car and was caught between car and center prop in slope.
28,	James Rowe,	Miner,	Williamstown,	Dauphin co.,	Hurt on head while going up chute by a lump of coal striking him.
28,	David C. Davis,	Laborer,	Burnside,	Northumberland co.,	Arm broken by being struck with hammer while drilling a rock hole.
Mar. 1,	Alexander Clark,	Miner,	Hickory Swamp,	Northumberland co.,	Small bone of leg broken between knee and instep by a fall of coal.
3,	M. Brenovitch,	Loader,	Morris Ridge,	Columbia co.,	Ankle sprained by being caught under top lever of dump chute inside in mine.

4,	Michael Corcoran,	Miner,	Luke Fidler,	Northumberland co.,	Injured by being run over by empty mine car No. 10 slope.
8,	Lewis Long,	Loader,	Bellmon,	Columbia co.,	Leg broken by being kicked by a mule.
14,	John Felker,	Miner,	Pennsylvania,	Northumberland co.,	Slightly burned by an explosion of C. H. gas.
14,	R. Zimmers,	do.	do.	do.	Slightly burned by an explosion of C. H. gas.
16,	Anthony McDonald,	do.	Logan,	Columbia co.,	Injured by a gangway collar falling on him.
16,	Roland Leach,	do.	Locust Spring,	Northumberland co.,	Injured on head and body by a fall of coal.
21,	Lewis Howard,		Hickory Swamp,	do.	Injured by a fall of coal.
25,	Andrew Stork,	Laborer,	Hazle Dell,	Columbia co.,	His two hands blown off and one eye blown out by an explosion of dualin caps while handling them.
31,	John Cassatt,	Miner,	Big Mountain,	Northumberland co.,	Burned on hands and face by an explosion of C. H. gas.
April 2,	James Davis,	Doortender,	Preston No. 3,	Schuylkill co.,	Injured on right leg by being run over by mine car.
2,	Anthony Cocochinas,	Miner,	Pennsylvania,	Northumberland co.,	Injured by a fall of top coal.
6,	Rudolph Weaver,	Laborer,	Burnside,	do.	Shoulder dislocated by being caught between a mine car and prop.
6,	Paul Steiner,	Miner,	Burnside,	Northumberland co.,	Back and head injured by a fall of top coal.
14,	Michael Breslin,	Dirt bankman,	Monitor,	do.	Leg broken by being run over by dirt dumper.
18,	Solomon Martin,	Miner,	Big Mountain,	do.	Injured on back and leg by a fall of top slate.
19,	James Romberger,	Laborer,	Williamstown,	Dauphin co.,	Injured by being run over by mine car.
21,	John W. Boush,	Carpenter,	Lykens Valley,	do.	Collar bone broken and injured internally by being caught in safety truck pit by safety truck on top of slope.
25,	Andrew Moleskey,	Loader,	Locust Spring,	Northumberland co.,	Ribs fractured by being caught between mine cars and platform while uncoupling the cars.
26,	James McGuire,	Miner,	Neilson,	Shamokin, Northumberland co.,	Slightly burned on hands, feet and neck by carbureted hydrogen gas.
27,	John Horan,	Miner,	Centralia,	Centralia, Columbia co.,	Leg broken between knee and ankle by a lump of coal striking him while starting a battery.
27,	Isaac Hollis,	do.	Bear Valley,	Coal twp., Northumberland co.,	Leg broken by a fall of coal.
28,	John Burgand,	Dirt bank driver,	Locust Spring,	Locust Gap, Northumberland co.,	Leg cut and back injured; the mule ran away with dumper he slipped and fell under dumper.
29,	John Boyle,	Miner,	Pennsylvania,	Mt. Carmel twp., Northumb'd co.,	Burned on hands and face by carbureted hydrogen gas.
29,	Anthony Subis,	Miner,	Pennsylvania,	Mt. Carmel twp., Northumb'd co.,	Burned on hands and face by carbureted hydrogen gas.
30,	John Eagan,	Starter,	Preston No. 3,	Girardville, Schuylkill co,	Fracture of right collar bone while riding on front of a trip of mine cars, his shoulder was caught between top of car and top of tunnel.
May 4,	John Krapp,	Miner,	Big Mine Run,	Big Mine Run, Schuylkill co.,	Hip seriously injured by a fall of coal.
4,	Charles Yodas,	do.	Pennsylvania,	Mt. Carmel twp., Northumb'd co.,	Injured by being squeezed between mine cars.
5,	Enoch Woliskle,	Miner,	Mt. Carmel Shaft,	do. do.	Burned by an explosion of powder while making a cartridge, a spark from the lamp on his head fell into and exploded about half a keg powder.
7,	Constantine Flime,	do.	Enterprise,	Coal twp., Northumberland co.,	Arm nearly cut off by a fall of top slate.
7,	Henry Yeager,	Dirt loader,	Locust Spring,	Locust Gap, Northumberland co.,	Rupture of a blood vessel by lifting a dirt dumper.
7,	James F. Rittinger,	Slope man,	Short Mountain,	Wiconisco twp., Dauphin co.,	Leg broken by a prop falling on him while lowering the load.
9,	John Hoover,	Miner,	Bear Valley,	Coal twp., Northumberland co.,	Arm broken and head cut; he fell while running away from a blast.

TABLE No. 5—Continued.

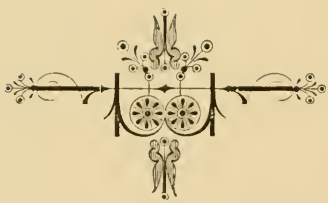
Date of accident.	Name of Person Injured.	Occupation.	Name of Colliery.	Location.	Nature and Cause of Accident.
May 10,	Isaac Evans,	Miner,	Neilson,	Shamokin, Northumberland co.,	Burned on face and hands by an explosion of powder while charging a hole, a spark from the lamp on his head fell into the powder.
10,	Alvin Snyder,	Miner,	Neilson,	Shamokin, Northumberland co.,	Burned on face and hands by same explosion that burned Evans.
18,	Frank Skoskie,	Miner,	Neilson,	Shamokin, Northumberland co.,	Burned by a premature explosion or blast of powder.
26,	Richard Gavin,	Miner,	Bast,	Big Mine Run, Schuylkill co.,	Leg broken and head cut by a fall of coal.
27,	John Kosloskie,	Outside laborer,	Peerless,	Shamokin, Northumberland co.,	Burned and injured about body by a trestling falling while he was passing over it with a car of hot ashes from boilers.
27,	Michael O'Neil,	Outside laborer,	Peerless,	Shamokin, Northumberland co.,	Injured about body by contusion caused by the falling of trestling.
28,	Andrew Kane,	Miner,	Big Mountain,	Coal twp., Northumberland co.,	Hands and face burned by carbureted hydrogen gas; after firing a blast they both went up to face of breast with naked lights, leaving their safety lamp in the lower cross-heading.
28,	Anthony Wallange,	Miner,	Big Mountain,	Coal twp., Northumberland co.,	
June 3,	Joseph Wicoskie,	Miner,	Burnside,	Coal twp., Northumberland co.,	Leg broken by a fall of top slate.
4,	Herman Woller,	do.	Big Mine Run,	Big Mine Run, Schuylkill co.,	Leg broken by a fall of partition slate.
4,	Robert Crawford,	Door boy,	Sterling,	Coal twp., Northumberland co.,	Leg broken in two places by being crushed between a buggy (small mine car) and prop.
8,	William Shekoskie,	Miner,	Pennsylvania,	Mt. Carmel twp., Northumb'd co.,	Leg broken by a fall of top coal.
11,	Christian Connor,	Loader,	Hazle Dell,	Conyngham twp., Columbia co.,	Arm broken while uncoupling mine cars.
11,	John Petrosavage,	Miner,	Pennsylvania,	Mt. Carmel twp., Northumb'd co.,	Seriously injured by the premature explosion of a blast.
14,	Joseph Dunlap,	Miner,	Short Mountain & Lykens Valley,	Wiconisco twp., Dauphin co.,	Thigh bone broken by a fall of coal.
17,	W. J. Jones,	Driver,	Luke Fidler,	Coal twp., Northumberland co.,	Leg broken by a mule falling on him.
18,	Thomas Bratchetaky,	Miner,	Hickory Swamp,	do. do.	Burned on hands, face and neck by C. H. gas.
18,	Edward Donahoe,	do.	Logan,	Conyngham twp., Columbia co.,	Ribs fractured while attempting to board a train of moving empty mine cars.
23,	John Polin,	Driver,	Williamstown,	Williamstown twp., Dauphin co.,	Burned on face, hands and body by an explosion of about half a keg of powder.
23,	David Holland,	Laborer,	Short Mountain and Lykens Valley	Wiconisco twp., Dauphin co.,	Injured by being caught under a rush of coal, slate and dirt out of chute on lower level East Lykens Valley slope level.

29,	Monroe Brubaker, .	Contractor, ...	North Franklin No. 2, ...	Trevorton, Northumberland co.,	Injured about body and cut on face by a fall of coal.
30,	Michael Bobish, . . .	Miner, ...	Neilson, ...	Shamokin, Northumberland co.,	Leg broken by a fall of top slate in No. 12 vein, east gangway.
July 9,	Henry L. Renn, . . .	do.	Cameron, ...	do. do.	Burned on hands, face, neck and shoulder by C. H. gas.
12,	Edward O. Evans, . .	do.	do.	do. do.	Burned about the face by an explosion of C. H. gas out of drill hole.
16,	Andrew Subrinski, .	do.	Monitor, ...	Locust Gap Northumberland co.,	Thigh bone broken by a fall of coal.
16,	Edward Brennan, . .	do.	Williamstown, ...	Williamstown, Dauphin co., . . .	Severely injured about the head and body by a fall of coal.
19,	Frank Willard, . . .	Loader, ...	do.	do. do. . . .	Foot injured by door bar of mine car running into it.
20,	Frank Devitt, ...	Miner, ...	Sterling, ...	Coal twp., Northumberland co., .	Ruptured while moving some rock.
27,	Andrew Rooney, . .	do.	Hazle Dell, ...	Conyngham twp., Columbia co., .	Bone of wrist fractured by a prop falling on it.
27,	John Alecovitch, . .	Loader, ...	Logan, ...	do. do. .	Leg fractured by a level or pole falling on it while helping to put mine car on track.
27,	Frank Hacock, . . .	. . . . .	Pennsylvania, ...	Mt. Carmel twp., Northum'd co.,	Hip dislocated
30,	Jacob Trubley, . . .	Miner, ...	Big Mountain, ...	Coal twp., Northumberland co., .	Burned on hands and face by C. H. gas.
30,	A. F. Yocum, ...	do.	do.	do. do. .	Burned on hands and face by C. H. gas.
Aug. 5,	John Christ, ...	do.	Cameron, ...	Shamokin, Northumberland co., .	Leg broken by a fall of top coal.
5,	Patrick O'Niel, . . .	do.	Monitor, ...	Locust Gap, Northumberland co.,	Leg broken and two toes of right foot cut off by a fall of coal.
6,	John Fahringer, . . .	Laborer, ...	Centralia, ...	Centralia, Columbia co., ...	Injured about head and face by being crushed between mine car and chute.
8,	. . . . .	Miner, ...	Excelsior, ...	Coal twp., Northumberland co., .	Foot hurt by a fall of slate.
10,	Frank Sesco, ...	Laborer, ...	Henry Clay, ...	do. do. .	Head and breast injured by a collar falling on him.
20,	John Poliuskii, . . .	Miner, ...	Alaska Shaft, ...	Mt. Carmel twp., Northum'd co.,	Burned by a premature blast.
22,	Michael Roland, . . .	Loader, ...	North Ashland, ...	Conyngham twp., Columbia co., .	Ankle mashed by being caught between a battery and coal.
23,	John Yarmoth, . . .	Laborer.	Hazle Dell, ...	do. do. .	Leg fractured by a fall of coal.
23,	Preston Fisher, . . .	Miner, ...	Bellman, ...	do. do. .	Injured by a fall of coal.
23,	Joel Lubold, ...	do.	do.	do. do. .	Injured by a fall of coal.
26,	Jesse Morris, ...	Driver, ...	Lykens Valley, ...	Wiconisco, Dauphin co., ...	Severely injured. He fell under loaded mine cars.
Sept. 2,	Patrick Haggerty, . .	Miner, ...	Locust Spring, ...	Locust Gap, Northumberland co.,	Head and back cut and bruised by a fall of rock.
7,	Paul Chillick, ...	do.	Excelsior, ...	Coal twp., Northumberland co., .	Leg broken by a fall of top slate.
12,	Walter Mathewson, .	do.	Big Mountain, ...	do. do. .	Leg broken by a fall of coal.
20,	Michael O'Donnell, .	Platform man, . .	Bast, ...	Big Mine Run, Schuylkill co., . .	Shoulder dislocated by slipping and falling on platform.
28,	Thomas Williams, . .	Miner, ...	Burnside, ...	Coal twp., Northumberland co., .	Injured about small of back by fall of top coal.
28,	Joseph Harris, . . .	Slate-picker, . . .	Henry Clay, ...	do. do. .	Elbow fractured. He fell coming from breaker.
29,	Patrick Sweeney, . .	Miner, ...	Tunnel, ...	Ashland, Schuylkill co., ...	Rib broken by falling down breast manway.
Oct. 4,	John Crevick, ...	do.	Neilson, ...	Shamokin, Northumberland co.,	Injured about the spine by a fall of top slate.
6,	Hiram Malick, ...	do.	Williamstown, ...	Williamstown, Dauphin co., . . .	Injured about the head and back by a fall of coal.
7,	Peter Matulis, ...	do.	Pennsylvania, ...	Mt. Carmel twp., Northum'd co.,	Injured about the body by a fall of top slate.
7,	L. Martin, ...	Loader, ...	Peerless, ...	Shamokin, Northumberland co.,	Leg broken by being caught by mine car while running it.
7,	Lewis Williams, . . .	Door-boy, ...	Burnside, ...	Coal twp., Northumberland co., .	Head squeezed while uncoupling mine cars in motion.
13,	Victor Rissinger, . .	Loader, ...	Preston No. 3, ...	Girardville, Schuylkill co., . . .	Foot severely bruised while unloading a dumper.
20,	William Condell, . .	Miner, ...	Williamstown, ...	Williamstown, Dauphin co., . . .	Severely injured about body by a fall of slate.
21,	Andrew Vasco, ...	do.	Lancaster, ...	Coal twp., Northumberland co., .	Burned by an explosion of a keg of powder while making a cartridge of powder.

TABLE No. 5—Continued.

Date of accident.	NAME OF PERSON INJURED.	Occupation.	Name of Colliery.	Location.	Nature and Cause of Accident.
Oct. 25,	Henry Chubb, ...	Outside laborer, .	Short Mountain and Lykens Valley	Wiconisco twp., Dauphin co., . .	Thigh bone broken by being struck by a piece of T rail while rolling a boiler.
26,	William Cavanagh, .	Driver, ...	Williamstown, ...	Williamstown, Dauphin co., . . .	Right arm injured by loaded cars running over it.
Nov. 11,	Michael Sevick, . . .	Miner, ...	Big Mountain, ...	Coal twp., Northumberland co., .	Rib broken by being caught between mine car and top rock.
11,	Charles Conrad, . . .	do.	do.	do. do. .	Slightly burned by C. H. gas. He went up to face of the coal breast without a safety lamp after firing a blast.
12,	John Burke, ...	Laborer, ...	Preston No. 3, ...	Girardville, Schuylkill co., ...	Severe laceration of back of head, right ear torn off and contusion of the brain by a premature explosion of dynamite while blasting rock.
19,	Frank Marchinsky, .	Miner, ...	Hickory Swamp, ...	Coal twp., Northumberland co., .	Injured by being struck with coal from blast while going down manway.
19,	John McNealis, . . .	Driver, ...	Bellmon, ...	Conyngham twp., Columbia co., .	Left arm broken at wrist, by being squeezed between mule and mine car.
21,	Daniel Gerrity, . . .	Laborer, ...	Morris Ridge, ...	do. do. .	Ankle broken. While carrying timber outside he slipped and fell.
21,	John Horan, ...	Starter, ...	Tunnel, ...	Ashland, Schuylkill co., ...	Arm broken by being caught between mine car and gangway collar.
26,	Jacob Graeff, ...	Laborer, ...	Bellmon, ...	Conyngham twp., Columbia co., .	Leg broken by a fall of slate while working in west gangway of south tunnel bottom vein.
30,	John Stanislaus, . . .	Miner, ...	Pennsylvania, ...	Mt. Carmel twp., Northum'd co.,	Badly hurt by falling down a chute in No. 3 slope.
Dec. 2,	Frank Wesoloskil, . .	do.	Burnside, ...	Coal twp., Northumberland co., .	Knee fractured by falling while going down his manway.
3,	William Rynard, . .	do.	Alaska Shaft, ...	Mt. Carmel twp., Northum'd co.,	Leg broken by a fall of bone coal.
7,	John Smith, ...	do.	Pennsylvania, ...	do. do.	Slightly burned by an explosion of C. H. gas.
7,	Charles Reybuck, . .	Driver, ...	Neilson, ...	Shamokin, Northumberland co.,	Injured about face by being kicked by a mule.
8,	John Kelley, ...	Miner, ...	Logan, ...	Conyngham twp., Columbia co.,	Leg fractured by a fall of coal.
13,	Alfred Ruse, ...	Repairman, ...	Henry Clay, ...	Coal twp., Northumberland co., .	Abdomen injured forming an abcess, caused by being punctured by a nail.
14,	August Morgan, . . .	Miner, ...	Pennsylvania, ...	Mt. Carmel twp., Northum'd co.,	Slightly burned by an explosion of C. H. gas.
14,	Frank Bogden, . . .	do.	do.	do. do.	Slightly burned by an explosion of C. H. gas.

17,	Reuben Noll, ...	do.	Garfield, ...	Coal twp., Northumberland co., .	Severely burned by an explosion of a keg of powder. While making a cartridge a spark from his lamp fell into the powder.
22,	Enoch Sachpokil, . .	Driver, ...	Big Mountain, ...	Coal twp., Northumberland co., .	Collar bone broken by mine car jumping the track.
23,	William Davis, ...	Top of slope man,	Williamstown, ...	Williamstown, Dauphin co., . .	Arm crushed by mine car running over it.
30,	James Skelding, . . .	Miner, ...	Pennsylvania, ...	Mt. Carmel twp., Northum'd co.,	Burned on face, neck, arms and hands by an explosion of C. H. gas.



SEVENTH ANTHRACITE DISTRICT.

Hon. THOMAS J. STEWART,
Secretary of Internal Affairs:

SIR: I have the honor to submit herewith my thirteenth annual report as inspector of coal mines of the Seventh Anthracite district, in accordance with the requirements of act of Assembly, approved June 30, 1885.

The report contains the usual tables showing the number of fatal and non-fatal accidents. Also the output of coal for the year ending December 31, 1887.

It will be observed by the following tables that twenty persons lost their lives. Fifty-five per cent. of these casualties resulted from falls of coal and rock, whilst fifteen per cent. resulted from explosions of blasting material. Hence it will be seen that seventy per cent. of the list of fatal accidents resulted from two causes, viz: Falls of roof and coal, and through the reckless handling of explosives by the victims themselves. This is an increase over the preceding year, from the same sources, of twenty-eight per cent.

Forty-two persons were seriously injured by various causes. Thirty-three per cent. of the list resulted from falls and explosives.

Yours truly,

SAMUEL GAY, *Inspector.*

POTTSVILLE, *March 1, 1888.*

TABLE No. 1.—Comparative Statement of Fatal Casualties Occurring During the Years of 1886 and 1887.

CAUSE OF ACCIDENTS.	YEARS.	
	1886.	1887.
Explosions of fire-damp,	....	1
Falls of coal and roof,	5	11
Crushed by mine cars,	....	1
By machinery on the surface,	1	1
Falling down slopes,	1	....
Breaking of ropes or chains,	2	....
Explosions of blasting material,	4	3
Miscellaneous causes,	8	3
Totals,	21	20

TABLE No. 2.—Number of Fatal Accidents and Amount of Coal Produced per Life Lost by the Different Companies.

	Number of fatal accidents.	Amount of coal produced per life lost.
Philadelphia and Reading Coal and Iron Company,	13	99,688
Lehigh Coal and Navigation,	6	58,002
Alliance Coal Mining Company,	....	127,480
Individual firms,	1	526,077

TABLE No. 3.—Non-Fatal Accidents—Comparative Statement of Non-Fatal Casualties Occurring During the Years 1886 and 1887.

CAUSE OF ACCIDENTS.	YEARS.	
	1886.	1887.
Explosions of fire-damp,	3	5
Falls of coal and roof,	16	14
By mine cars,	4	10
By machinery on the surface,	....	1
By machinery underground,	....	1
Falling down slopes,	1	....
Explosions of blasting material,	6	2
Miscellaneous,	13	8
	43	42

TABLE No. 4.—Table Showing the Total Amount of Coal Shipped, Together with the Estimated Amount Used and Sold at the Collieries.

	YEARS.	
	1886.	1887.
Amount of coal shipped,	2,335,862	2,298,509
Used at the collieries,	141,517	137,790
Total of tons produced,	2,476,013	2,436,299

TABLE No. 5.—Showing a Comparison Between the Years 1886 and 1887 Respectively.

	Years.	
	1886.	1887.
Number of persons employed,	8,075	8,207
Number of tons of coal produced per life lost,	117,905	121,814
Ratio of employés per life lost,	384	410.35
Number of tons produced per each person seriously injured,	57,349	58,007
Tons of coal produced per employé,	. . . . .	296.75

TABLE No. 6.—Showing Number of Deaths and Ratio Thereof per every Thousand Employees of the Different Companies and Individual Firms for the Year 1887.

	Number of employés.	Number of deaths.	Number of deaths per thousand employés.
Philadelphia and Reading Coal and Iron Company,	4,642	13	. . . .
Lehigh Coal and Navigation Company,	1,546	6	. . . .
Alliance Coal Mining Company,	594	. . . .	. . . .
Individual firms,	1,425	1	. . . .
Totals,	8,207	20	$2\frac{435}{1000}$

Condition of Collieries.

The general condition of the mines in the district, we are pleased to say, is steadily being improved; especially the ventilation, and we are of the opinion that if the workmen themselves would be more careful in handling explosives, and pay a little more attention to the condition of the roof and sides under which they work, the number of accidents would be very much reduced. And it is from the workmen themselves that we must look for relief from that class of accidents that average from fifty to seventy per cent. of the total list of fatal and non-fatal accidents.

TABLE No. 1.—Showing location of collieries in the Seventh Anthracite Mine District.

NAME OF COLLIERY.	Name of Operator.	Location—County.	Name of Superintendent.	Post-Office Address.
Brookside,	Philadelphia and Reading Coal and Iron Company,	Tower City, Schuylkill county,	John Veeth,	Pottsville.
Kalmia,	do. do. do.	do. do.	do.	do.
East Franklin,	do. do. do.	Upper Raush Creek, do.	do.	do.
Middle Creek Shaft,	do. do. do.	Middle Creek, do.	do.	do.
Otto,	do. do. do.	Branchdale, do.	do.	do.
Phenix Park No. 3,	do. do. do.	Phenix Park, do.	do.	do.
Beachwood,	do. do. do.	Mount Laffe, do.	do.	do.
Glendower,	do. do. do.	Taylorsville, do.	do.	do.
Taylorsville,	do. do. do.	do. do.	do.	do.
Eagle,	do. do. do.	Saint Clair, do.	do.	do.
Eagle Hill,	do. do. do.	Eagle Hill, do.	do.	do.
Pine Forest,	do. do. do.	Saint Clair, do.	do.	do.
Richardson,	do. do. do.	Glencarbon, do.	do.	do.
Thomaston,	do. do. do.	Thomaston, do.	do.	do.
Old Lincoln,	do. do. do.	Lorberry, do.	do.	do.
Lehigh No. 8,	Lehigh Coal and Navigation Company,	Coal Dale, do.	W. D. Zehner,	Lansford, Carbon county.
Lehigh No. 12,	do. do.	do. do.	do.	do. do.
Lehigh No. 10,	do. do.	do. do.	do.	do. do.
Lehigh No. 11,	do. do.	do. do.	do.	do. do.
Kaskawilliam,	do. do.	Middleport, do.	do.	do. do.
Palmer Vein,	do. do.	New Philadelphia, do.	do.	do. do.
New Boston,	Mill Creek Coal Company,	New Boston, do.	T. D. Jones,	Mahanoy City.
Herbin,	I. K. Segfried,	Minersville, do.		Pottsville.
Ellsworth,	John R. Davis,	New Castle, do.	John H. Davis,	Broad Mountain P. O.
Cryston,	Sowder & Brady,	do. do.	do.	do. do.
Schuylkill,	Quinn & Wemms,	do. do.	John Quinn,	St. Clair.
Vulcan,	George Johns & Co.,	Wadesville, do.	Thomas Edwards,	do.
Monitor,	I. Dennings & Bros.,	do. do.	Joseph Dennings,	do.
Hoocker,	Maurey & Co.,	St. Clair, do.	John A. Dutter,	do.
Chamberlin,	Thompson, Heatt & Co.,	do. do.	Daniel Thompson,	do.
New Town.				
Keckline,	R. O. Connors,	Thomaston, do.	Thomas O'Connor,	Heckscherville.
Pine Dale,	Slemmer & Co.,	Middleport, do.	Mark Bowman,	Middleport.
Millford,	Docker & Co.,	do. do.	do.	do.
Diamond,	John Lawerence,	Minersville, do.	John Lawerence,	Minersville.
Greenwood No. 13,	Thomas Oliver,	Tamaqua, do.	Thomas Oliver,	Tamaqua.
East Lehigh,	Mitchell & Shepp,	do. do.	Joseph Mitchell,	do.
West Lehigh,	Peter Young & Co.,	do. do.	Peter Young,	do.

TABLE No. 2.—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employés, number of persons killed and injured, number of kegs of powder used, &c., in the Seventh Anthracite District for the yea ending December 31, 1887.

NAMES OF COLLIERIES.	Location—Schuylkill county.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.
Middle Creek shaft,	Middle Creek,		109,154	250	437	...	...	2,650	20	42
Phenix Park No. 3,	Phenix Park,		59,860	243	346	...	...	1,150	14	30
Thomaston,	Thomaston,		140,396	244	512	...	2	5,350	28	71
Otto,	Branchdale,		53,718	96	401	...	3	1,050	32	11
Eagle,	St. Clair,		40,662	233	148	...	1	550	6	13
Gleudower,	Taylorsville,		78,819	232	396	...	...	1,900	21	41
Kalmia,	Tower City,		2,493	9	138	...	...	275	8	...
Beachwood,	Mount Loffe,		70,986	233	309	...	4	1,350	16	25
Lincoln,	Keffers,		112,754	249	413	...	1	2,775	24	53
Richardson,	Glencarbon,		111,490	239	216	...	...	1,200	29	34
West Brookside,	Tower City,		312,817	273	712	...	1	3,200	40	116
Taylorsville,	Taylorsville,		.....	.....	.....	...	...	.....	12	...
Eagle Hill,	Eagle Hill,		203,861	257	641	...	1	3,850	26	49
Lehigh No. 8,	Coal Dale,		93,413	179	445	...	3	180	37	56
Lehigh No. 10,	do.		121,029	183	419	...	1	1,080	36	52
Lehigh No. 11,	do.		70,834	164	406	...	1	840	13	48
Lehigh No. 12,	do.		62,736	154	256	...	1	1,380	12	25
Kaskawilliam,	Middleport,		122,072	139	566	...	...	2,397	...	44
Palmer Vein,	New Philadelphia,		5,408	.....	28	...	...	85	...	13
New Lincoln,	Keffers,		148,278	267	348	...	...	1 755	20	29
New Boston,	Mahanoy,		231,000	249	459	...	...	5,485	44	...
Herbine,	Minersville,		38,943	275	153	...	...	1,238	4	10
Lehigh No. 13,	Tamaqua,		22,135	209	71	...	...	217	2	7
Ellsworth,	New Castle,,		12,282	269	27	...	...	270	2	5
Hooker,	St. Clair,		13,646	250	64	...	...	300	2	8
Crystal,	New Castle,		9,596	.....	35	...	...	242	2	7
East Lehigh,	Tamaqua,		4,157	160	25	...	...	120	1	4
Schuylkill Valley,	New Castle,		3,706	163	26	...	...	135	2	1

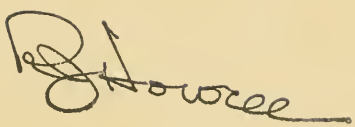
TABLE No. 2.—Continued.

NAMES OF COLLIERIES.	Location—Schuylkill county.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.
Kicklene,	Thomaston,	.....	2,225	126	15	...	...	126	1	4
West Lehigh,	Tamaqua,	.....	14,219	239	40	...	...	180	1	4
Denning & Brother,	Wadesville,	.....	4,471	204	20	...	...	117	2	4
Vulcan,	do.	.....	10,026	160	56	...	...	481	4	5
Chamberlin,	St. Clair,	.....	7,793	102	75	...	...	300	4	2
Diamond,	Minersville,	.....	3,600	295	11	...	...	72	...	3
Altomont,	Broad Mountain,	.....	.....	.....	80	...	...	.....	...	...
Stout Coal Company,	New Boston,	.....	.....	.....	35	...	...	...	...	...
Sold and consumed at collieries,		137,790	.....	.....	.....	...	...	.....	...	...
		2,436,299	2,298,509	5,523	8,207	20	42	3,628	...	716

TABLE No. 4.—List of fatal accidents occurring in and about the mines of the Seventh Anthracite District for the year ended December 31, 1887.

Date of accident.	Name of Person.	Occupation.	Age.	Widow.	No. of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 5,	Michael Govell,	Slate picker,	13			Lehigh No. 12,	Schuylkill,	Caught in breaker machinery.
14,	John Coll,	Laborer,	24			Lehigh No. 8,	do.	Head crush d between two cars.
24,	Oliver Welsh,	Repairsman,	56	Yes,		Thomaston,	do.	Fatally injured by a piece of coal thrown from a blast.
Feb. 2,	Edward Dunkin,	Laborer,	20			Eagle Hill,	do.	Killed by a fall of slate.
17,	Griffiths Davis,	Miner,	38	Yes,	3	Lehigh No. 8,	do.	Died from the effects of being burned by an explosion of gas.
Mar. 16,	James Connors,	do.	26	Yes,		Beechwood,	do,	Fatally injured by a fall of coal.
Apr. 1,	Evan Davis,	do.	26	Yes,	3	Lehigh No. 8,	do.	Killed by the premature explosion of a blast.
May 14,	Edward Phillips,	do.				Beechwood,	do.	Died from the effects of injuries received by a fall of coal.
17,	Martin Brenan,	do.	63	Yes,		do.	do.	Died from the effects of injuries received by a fall of coal,
25,	Jenkins Jenkins,	do.	63			Otto,	do.	Killed by a fall of slate.
25,	James Price,	Sinker,	27	Yes,	6	Lehigh No. 11,	do.	Killed by a fall of rock.
June 22,	John Monion,	Laborer,	25			Beechwood,	do.	Killed by a fall of slate.
July 12,	Edward Ferguson,	do.	20			Otto,	do.	Killed by falling down a slope.
Sept. 3,	Thomas Willing,	Miner,	47	Yes,	7	Lehigh No. 10,	do.	Killed by a fall of coal.
" 28,	Michael Quinn,	Repairsman,	40	Yes,	11	Thomaston,	do.	Died from being struck by coal from a blast.
Oct. 14,	Albert Yohe,	Miner,	24	Yes,	3	Brookside,	do.	Died from a fall of slate.
25,	James Mitchell,	do.				Eagle,	do.	Killed by a fall of coal.
Nov. 1,	Moses Thornton,	do.			1	Chamberlin,	do.	Killed by a mine car.
Dec. 7,	Thomas Malley,	Laborer,				Otto,	do.	Killed by a fall of slate.
12,	Charles Kelmele,	Miner,				Old Lincoln,	do.	Killed by a fall of slate.

TABLE No. 5—List of non-fatal accidents occurring in and about the mines of the Seventh Anthracite District for the year ended December 31, 1887.

Date of accident.	NAME OF PERSON.	Occupation.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Feb. 8,	John Adams,	Miner,	Lehigh No. 10,	Schuylkill,	Bruised about the body and arm broken.
8,	Isaac Patrick,	do.	Brookside,	do.	Leg broken; struck by a piece of coal.
18,	Levi Teller,	Topman,	New Lincoln,	do.	Hand injured by a car.
18,	Harry Zimmerman,	Miner,	do.	do.	Leg bruised by a piece of coal.
18,	Daniel Griffith,	do.	Lehigh No. 8,	do.	Slightly burned by an explosion of gas.
17,	John Curran,	Fire boss,	Glendower,	do.	Slightly burned by an explosion of gas.
17,	James Edwards,	Miner,	do.	do.	Severely burned by an explosion of gas.
17,	Frank Wolbeson,	do.		do.	Slightly burned by an explosion of gas.
23,	William Shaw,	Laborer,	Lehigh No. 10,	do.	Leg broken by a piece of timber.
Mar. 25,	Alfred Jerimia,	Miner,	Kaskawilliam,	do.	Slightly burned by an explosion of gas.
26,	John James,	do.	Phœnix Park No. 3,	do.	Back and hips injured by fall of slate.
26,	William Engle,	Slate picker,	New Lincoln,	do.	Thigh broken by being struck by a dirt dumper.
pr. 7,	John Derr,	Miner,	Middle Creek Shaft,	do.	Thigh broken by a fall of slate.
25,	Patrick Ryan,	do.	Richardson,	do.	Leg broken by a fall of coal.
May 13,	Patrick McKenna,	Laborer,	Eagle Hill,	do.	Leg broken by a prop falling on him.
17,	John Malley,	Miner,	Glendower,	do.	Severely injured by a premature explosion of a blast.
17,	Fritz Kenner,	Driver,	Greenwood No. 13,	do.	Lost his leg by falling under a mine car.
June 1,	Ed. Hady,	Bottom man,	New Boston,	do.	Leg broken by a mine car.
1,	Ben Evans,	Miner,	Crystal,	do.	Injured by falling down a manway.
10,	Ed. Stapleton,		Kaskawilliam,	do.	Severely injured by an explosion.
10,	John Roan,		do.	do.	
10,	James McGowan,		do.	do.	
19,	John Adams,		Lehigh No. 10,	do.	Foot injured by being caught between pieces of coal.
July 7,	Phil Bellinger,	Miner,	Otto,	do.	Arm broken and leg injured by a fall of coal.
8,	Marien Koupsky,	Laborer,	Kaskawilliam,	do.	Back sprained by falling from a car.
20,	Alex. McDonald,	Slate picker,	do.	do.	Wrist broken and finger mashed.
25,	Andrew Bobender,	Laborer,	New Boston,	do.	Injured by a fall of slate.
Aug. 1,	John Bergen,	Miner,	Glendower,	do.	Injured by a fall of coal.
5,	James Tracy,	do.	Richardson,	do.	Injured by an explosion.
17,	William Lawrence,	do.	do.	do.	Leg broken by a fall of slate.
23,	Eber Jones,	do.	Herbine,	do.	Seriously injured in the back by a fall of slate.
27,	James Murry,	do.	Eagle,	do.	Cut and bruised about the head.
31,	John Clemson,	do.	New Boston,	do.	Injured by a fall of roof.
31,	Michael Gumbush,	Laborer,	do.	do.	Injured by a fall of roof.

Sept. 28,	August Litzman,	do.	Brookside,	do.	Rib broken by being struck by a sprag.
Oct. 6,	Michael Mahalg,	Car runner,	New Boston,	do.	Hip injured by being caught between cars.
15,	George Bohr,	Driver,	Old Lincoln,	do.	Arm broken by falling from a dirt car.
18,	Joseph Clemans,	do.	New Lincoln,	do.	Jaw broken by being struck by a mule spreader.
22,	Morgan Koup,	Laborer,	Altamont,	do.	Ribs fractured by being struck by a pump.
Nov. 5,	Michael Bailey,	do.	Eagle,	do.	Bruised about body by being caught by cars.
9,	John Shadel,	Miner,	New Lincoln,	do.	Thigh broken by a fall of coal.
11,	John Cummings,		Eagle Hill,	do.	Arm broken by a piece of coal.
11,	John Redding,	Laborer,	Brookside,	do.	Hurt about the body by a prop falling on him.
24,	John Turk,	do.	Thomaston,	do.	Collar bone fractured by a rush of coal.
Dec. 5,	James Stevens,	Miner,	Brookside,	do.	Rib fractured by falling down a chute.
20,	Ed. Keathing,	Door boy,	Eagle Hill,	do.	Leg broken by being caught between cars.
20,	John Gallagher,	Miner,	Herbine,	do.	Severely injured by a fall of slate.
27,	Jonathan Heberlin,	Driver,	New Lincoln,	do.	Injured by a mule falling on him.
28,	John Reitz,	Laborer,	Brookside,	do.	Leg broken by being caught by cars.